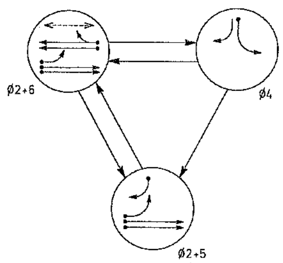
PROJECT REFERENCE NO.	SHEET NO.
	SIG. 1

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø 2+5	Ø 2+6	Ø 4	FLASH
21, 22	G	G	R	Y
41	R	R	G	R
42	R/→	R	G	R
51	←	←FY	←R	←Y
61, 62	R	G	R	Y
P61, P62	DW	W	DW	DRK

DRK - Dark Signal Face
W - Walk
DW - Don't Walk
FY - Flashing Yellow Arrow

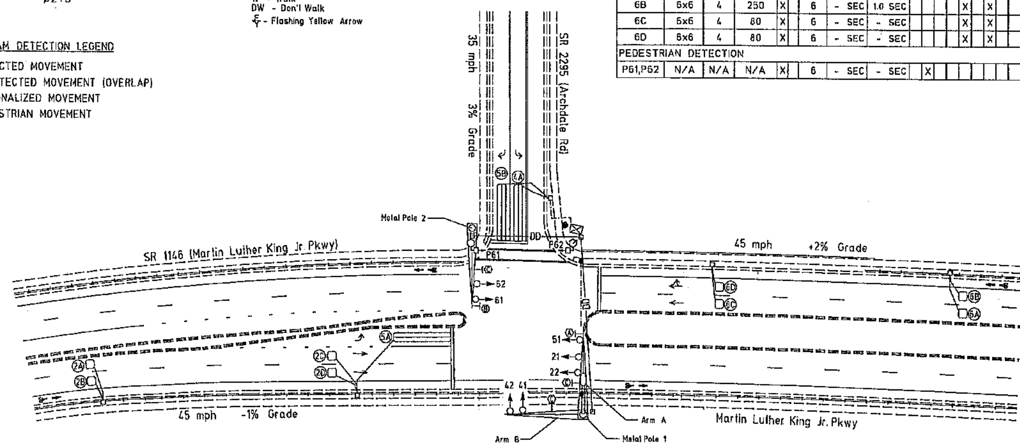
2070E LOOP & DETECTOR UNIT INSTALLATION CHART

INDUCTIVE LOOPS						DETECTOR PROGRAMMING													
LOOP NO.	SIZE (ft)	TURNS	DIST. FROM STOPBAR (ft)	NEW	EXISTING	NEMA PHASE	TIMING: DELAY	CARRY (STRETCH)	ATTRIBUTES 1	2	3	4	5	6	7	8	SYSTEM LOOPS	STATUS: NEW	EXISTING
2A	6x6	4	250	X		2	- SEC	1.0 SEC					X		X			X	
2B	6x6	4	250	X		2	- SEC	1.0 SEC					X		X			X	
2C	6x6	4	80	X		2	- SEC	- SEC					X		X			X	
2D	6x6	4	80	X		2	- SEC	- SEC					X		X			X	
4A	6x40	2-4-2	0	X		4	- SEC	- SEC					X		X			X	
5A	6x40	2-4-2	0	X		5	10 SEC	- SEC					X		X			X	
						2	- SEC	- SEC					X		X			X	
5B	6x40	2-4-2	0	X		5	15 SEC	- SEC					X		X			X	
						4	15 SEC	- SEC							X			X	
6A	6x6	4	250	X		6	- SEC	1.0 SEC					X		X			X	
6B	6x6	4	250	X		6	- SEC	1.0 SEC					X		X			X	
6C	6x6	4	80	X		6	- SEC	- SEC					X		X			X	
6D	6x6	4	80	X		6	- SEC	- SEC					X		X			X	
PEDESTRIAN DETECTION																			
P61,P62	N/A	N/A	N/A	X		6	- SEC	- SEC		X								X	

3 Phase
Fully Actuated
(Durham Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012, "Standard Specifications for Roads and Structures" dated January 2012, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: http://www.ncdot.org/doh/preconstruct/traffic/itss/
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 5 may be lagged.
4. Set all detector units to presence mode.
5. Program all timing information into phase banks 1, 2 and 3 unless otherwise noted.
6. Set phase bank 3 maximum limit to 250 seconds for phases used.
7. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
8. Program pedestrian heads to count down the flashing "Don't Walk" time only.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Install backplates for signal heads numbered 21, 22, 51, 61 and 62
11. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
12. If necessary, use optically programmed heads for the westbound direction.



LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Metal Pole with Mastarm	
	Inductive Loop Detector	
	Controller & Cabinet	
	Pull Box	
	2 in. Underground Conduit	
DD	Directional Drill	N/A
	Directional Arrow	
	Luminaire on Metal Pole	
	Signal Pedestal	
N/A	Guardrail	
	Stop Bar	
	Wheelchair Ramp	
(A)	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	(A)
(B)	No U-Turn Sign (R3-4)	(B)
(C)	Street Name Sign (D3-1)	(C)

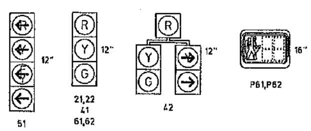
2070E TIMING CHART

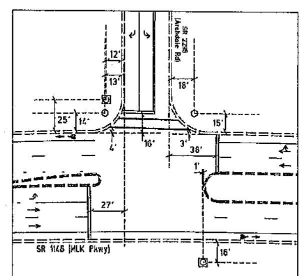
PHASE	Ø2	Ø4	Ø5	Ø6
MINIMUM INITIAL*	12 SEC	7 SEC	7 SEC	12 SEC
VEHICLE EXTENSION*	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
YELLOW CHANGE INTERVAL	4.6 SEC	3.0 SEC	3.0 SEC	4.6 SEC
RED CLEARANCE	1.3 SEC	2.6 SEC	2.8 SEC	1.3 SEC
MAXIMUM LIMIT*	60 SEC	45 SEC	30 SEC	60 SEC
RECALL POSITION	VEH RECALL	NONE	NONE	VEH RECALL
VEHICLE CALL MEMORY	YELLOW LOCK	NONE	NONE	YELLOW LOCK
DOUBLE ENTRY	OFF	OFF	OFF	OFF
WALK*	- SEC	- SEC	- SEC	7 SEC
FLASHING DON'T WALK	- SEC	- SEC	- SEC	12 SEC
TYPE 3 LIMIT	- SEC	- SEC	- SEC	- SEC
ADD PER VEHICLE*	- SEC	- SEC	- SEC	- SEC
MAXIMUM INITIAL*	- SEC	- SEC	- SEC	- SEC
MAXIMUM GAP*	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC
REDUCE 0.1 SEC EVERY*	- SEC	- SEC	- SEC	- SEC
MINIMUM GAP*	2.0 SEC	2.0 SEC	2.0 SEC	2.0 SEC

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

SIGNAL FACE I.D.

All Heads L.E.D.





Pole and Stopbar* Location Diagram
Not to Scale

*Note: Stopbars should be located 4 feet behind and parallel to crosswalks.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
FINAL DRAWING Date: 11/13/13
R. W. [signature]
Traffic Engineering Branch

NEW SIGNAL

DURHAM 1869
City of Durham
101 City Hall Plaza
Durham, NC 27701
(919) 560-4366

Transportation Mobility and Safety Division
Signal Design Section
750 Greenfield Pkwy, Garner, NC 27529

SCALE 0 — 40
1" = 40'

SR 1146 (Martin Luther King Jr. Parkway) at SR 2295 (Archdale Road)

DIVISION 5	DURHAM COUNTY	DURHAM
PLAN DATE: JUNE 2013	REVIEWED BY: P NICHOLAS	
PREPARED BY: L TRACEY	REVIEWED BY:	
REVISIONS	INIT	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 038734 ENGINEER LESLIE M. TRACEY

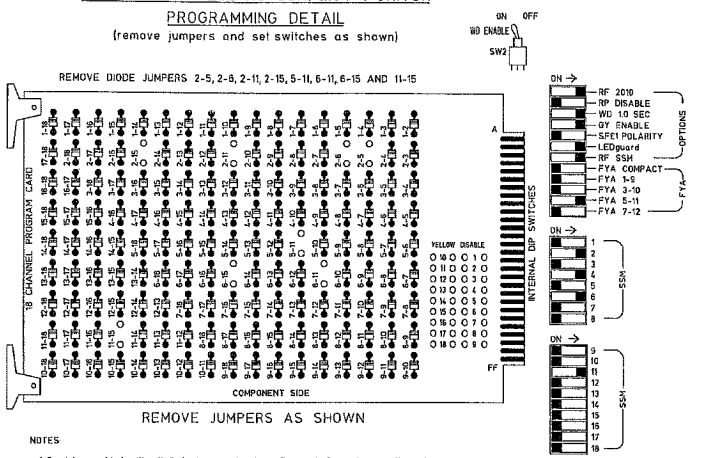
[signature] 9-19-13
SIGNATURE DATE

SIG INVENTORY NO. 05-0052

PROJECT REFERENCE NO.	SHEET NO.
	SIG. 2

EDI MODEL 2018ECL-NC CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

■ = DENOTES POSITION OF SWITCH

NOTES

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Ensure jumpers SEL2-SEL5 and SEL9 are present on the monitor board.
3. Ensure that Red Enable is active at all times during normal operation.
4. Ensure conflict monitor communicates with 2070 controller.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
2. Program controller to start up in phases 2 and 6 green.
3. Program phase 6 for "STARTUP PED CALL."
4. Set power-up flash time to 0 seconds within the controller programming. The conflict monitor will govern start-up flash time. Ensure STARTUP "RED START" is set to 0 seconds.
5. Enable simultaneous gap-out feature, on the controller unit, for all phases.
6. Set the Red Revert interval, on the controller unit, to 1 second.
7. Ensure start up flash phases are coordinated with flash program block assignments.
8. This controller and cabinet are to be programmed and wired to be a part of the Durham Computerized Signal System. The Contractor is responsible for the proper interconnection of this signal within the system.

EQUIPMENT INFORMATION

CONTROLLER 2070E
CABINET 332
SOFTWARE.....McCAIN 2033x
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS.....18 (12-STD, 6-AUX)
LOAD SWITCHES USED.....S2,S5,S7,S8,S9,AUX S4
PHASES USED.....2,4,5,6,6PED
OVERLAPS .....NONE

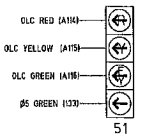
xSoftware to be supplied by City of Durham.

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	AUX S1	AUX S2	AUX S3	AUX S4	AUX S5	AUX S6
CMU CHANNEL NO.	1	2	13	3	4	14	5	8	15	7	8	16	9	10	17	11	12	18
PHASE	1	2	2 PED	3	4	4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	NU	21,22	NU	NU	41,42	NU	51★ 42	61,62	P61 P62	NU	NU	NU	NU	NU	NU	51★	NU	NU
RED		128			101			134										
YELLOW		129			102			135										
GREEN		130			103			136										
RED ARROW																A114		
YELLOW ARROW							132									A115		
FLASHING YELLOW ARROW																A116		
GREEN ARROW							133 133											
									118									
									121									

NU = Not Used
★ See pictorial of head wiring in detail below.

4-SECTION FYA WIRING DETAIL



INPUT FILE POSITION LAYOUT

(front view)

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	SLOT EMPTY	Ø2 2A	Ø2 2C	SLOT EMPTY	SLOT EMPTY	Ø4 4A	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø5 PED DC ISOLATOR	FS DC ISOLATOR
	L		Ø2 2B	Ø2 2D			NOT USED							NOT USED	ST DC ISOLATOR
FILE "J"	U	Ø5,2 5A	Ø6 6A	Ø6 6C	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	Ø5,4 5B	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY
	L	NOT USED	Ø6 6B	Ø6 6D						NOT USED					

EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS	DETECTOR NO.	PIN NO.	ATTRIBUTES	NEMA PHASE
2A	TB2-5,6	I2U	1	39	5, 7	2
2B	TB2-7,8	I2L	5	43	5, 7	2
2C	TB2-9,10	I3U	21	63	5, 7	2
2D	TB2-11,12	I3L	29	76	5, 7	2
4A	TB4-9,10	I6U	3	41	5, 7	4
5A	TB3-1,2	J1U	13	55	5, 7	5
			9	65	5, 7	2
5B	TB7-9,10	J9U	17	59	5, 7	5
			11	59	7	4
6A	TB3-5,6	J2U	2	40	5, 7	6
6B	TB3-7,8	J2L	6	44	5, 7	6
6C	TB3-9,10	J3U	22	64	5, 7	6
6D	TB3-11,12	J3L	30	77	5, 7	6
PEDESTRIAN PUSHBUTTONS						
P61,P62	TB8-7,9	I13U	25	68	2	6

NOTE: Program detector delay and carryover times as specified on signal design plans.

INPUT FILE POSITION LEGEND: XX
FILE I / FILE J
SLOT 1 = LOWER
SLOT 2 = UPPER

DETECTOR ATTRIBUTES LEGEND:
1-FULL TIME DELAY
2-PED CALL
3-RESERVED
4-COUNTING
5-EXTENSION
6-TYPE 2
7-CALLING
8-ALTERNATE

FLASHING YELLOW ARROW PROGRAMMING

1. PROGRAM FLASHING YELLOW ARROW PHASES AS FOLLOWS:
   Main Menu > (1) PHASE > (2) PHASE FUNCTIONS PAGE TWO
   PPLT FYA = Ø5
2. ASSIGN OUTPUT PIN FOR FLASHING YELLOW ARROW AS FOLLOWS:
   Main Menu > (6) OUTPUTS > (F) FYA PPLT
   Phase 5 = 90
3. REDIRECT RED AND YELLOW OUTPUTS FOR THE LEFT TURN PHASES AS FOLLOWS:
   Main Menu > (6) OUTPUTS > (8) REDIRECT PHASE
   Phase 5 RED = 88, Phase 5 YELLOW = 89

PEDESTRIAN PHASE PROGRAMMING

PROGRAM PEDESTRIAN OUTPUT 5P AS FOLLOWS:
Main Menu > (6) OUTPUTS > (7) PEDS
PED 5P = Ø6

COUNTDOWN PEDESTRIAN SIGNAL OPERATION

Countdown Ped Signals are required to display timing only during Ped Clearance Interval. Consult Ped Signal Module user's manual for instructions on selecting this feature.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 05-0052
DESIGNED: June 2013
SEALED: Sept. 19, 2013
REVISED:

SIGNAL SYSTEM DATA:	
Drop	21
Area	3
Area Address	107
Comm Channel	C-4

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
APPROVED 11/13/13
Traffic Engineer

DURHAM
City of Durham
101 City Hall Plaza
Durham, NC 27701
(919) 560-4366

NEW SIGNAL

NC Department of Transportation Mobility and Safety Division
Traffic Engineering Branch
Signals Management Section
750 Greenfield Pkwy, Garner, NC 27529

SR 1146 (Martin Luther King Jr. Parkway) at SR 2295 (Archdale Road)

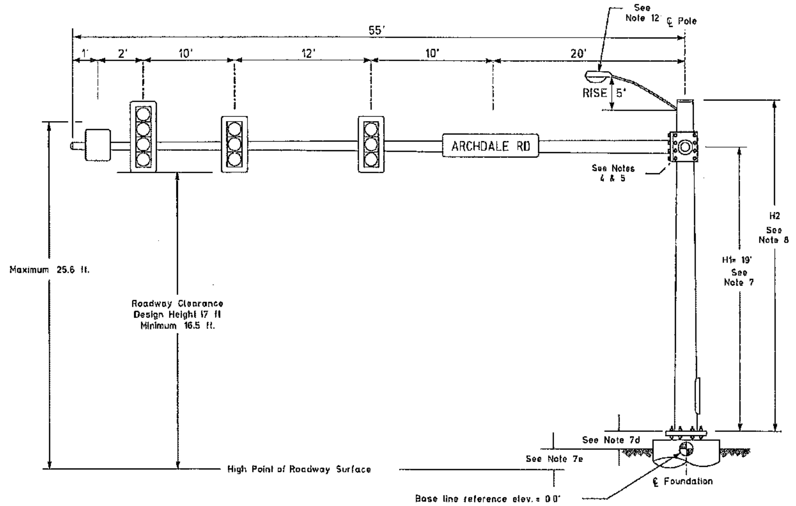
DIVISION 5 DURHAM COUNTY DURHAM

PLAN DATE:	JUNE 2013	REVIEWED BY:	P. NICHOLAS
PREPARED BY:	T. TRACEY	REVIEWED BY:	

REVISIONS	INIT.	DATE

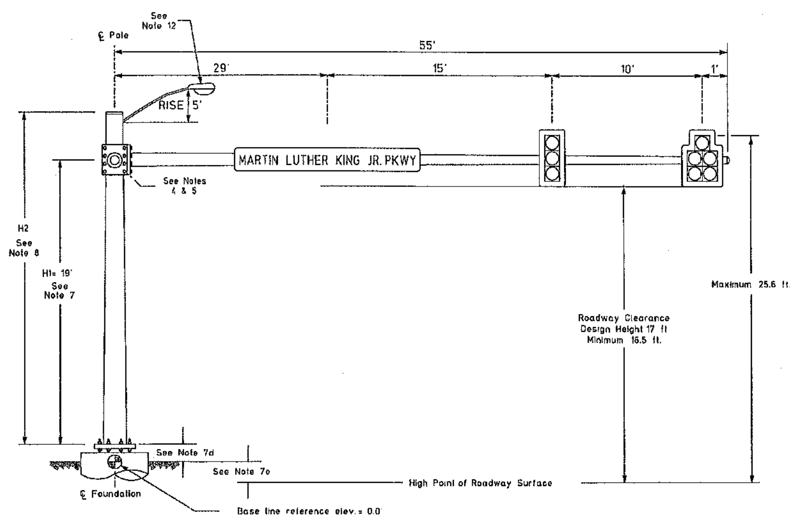
SEAL
SEAL 036734 NORTH CAROLINA PROFESSIONAL ENGINEER CECIL M. TRACEY
SIGNATURE 10-24-13 DATE
SIGNATORY NO. 05-0052

Design Loading for METAL POLE NO. 1, MAST ARM A



Elevation View at 270°

Design Loading for METAL POLE NO. 1, MAST ARM B



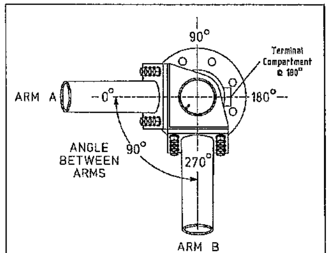
Elevation View at 0°

SPECIAL NOTE

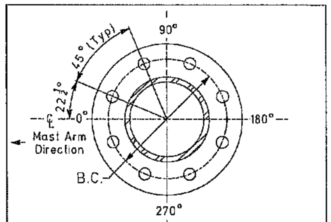
The contractor is responsible for verifying that the mast arm attachment height (H1) will provide the "Design Height" clearance from the roadway before submitting final shop drawings for approval. Verify elevation data below which was obtained by field measurement or from available project survey data.

Elevation Data for Mast Arm Attachment (H1)

Elevation Differences for:	Arm A	Arm B
Baseline reference point at ℄ Foundation at ground level	0.0 ft.	0.0 ft.
Elevation difference at High point of roadway surface	1.0 ft.	1.0 ft.
Elevation difference at Edge of travelway or face of curb	-1.0 ft.	-1.0 ft.

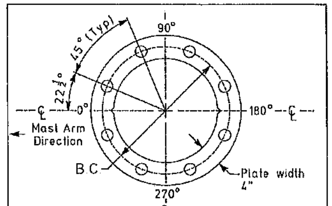


POLE RADIAL ORIENTATION



8 BOLT BASE PLATE DETAIL

See Note 6



BASE PLATE TEMPLATE & ANCHOR BOLT LOCK PLATE DETAIL

For 8 Bolt Base Plate

METAL POLE No. 1

PROJECT REFERENCE NO.	SHEET NO.
	Sig. 3

MAST ARM LOADING SCHEDULE

LOADING SYMBOL	DESCRIPTION	AREA	SIZE	WEIGHT
	SIGNAL HEAD 12"-5 SECTION-WITH BACKPLATE AND ASTRO-BRAC	16.3 S.F.	42.0" W X 56.0" L	103 LBS
	SIGNAL HEAD 12"-4 SECTION-WITH BACKPLATE AND ASTRO-BRAC	11.5 S.F.	25.5" W X 66.0" L	74 LBS
	SIGNAL HEAD 12"-3 SECTION-WITH BACKPLATE AND ASTRO-BRAC	9.3 S.F.	25.5" W X 52.5" L	60 LBS
	SIGN RIGID MOUNTED WITH ASTRO-SIGN-BRAC	5.0 S.F.	24.0" W X 30.0" L	11 LBS
STREET NAME SIGN	STREET NAME SIGN RIGID MOUNTED WITH ASTRO-SIGN-BRAC	12.0 S.F.	18.0" W X 96.0" L	27 LBS
	LUMINAIRE (Power Door Cobrahead) AEL ROADWAY SERIES 325	6.4 S.F.	22.0" W X 42.0" L	43 LBS

NOTES

Design Reference Material

1. Design the traffic signal structure and foundation in accordance with:
   - The 5th Edition 2009 AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, including all of the latest interim revisions.
   - The 2012 NCDOT "Standard Specifications for Roads and Structures". The latest addenda to these specifications can be found in the traffic signal project special provisions.
   - The 2012 NCDOT Roadway Standard Drawings.
   - The traffic signal project plans and special provisions.
   - The NCDOT "Metal Pole Standards" located at the following NCDOT website: http://www.ncdot.org/doh/preconstruct/traffic/ITSS/ws/mpoles/poles.html

Design Requirements

2. Design the traffic signal structure using the loading conditions shown in the elevation views. These are anticipated worst case "Design loads" and may not represent the actual loads that will be applied at the time of the installation. The contractor should refer to the traffic signal plans for the actual loads that will be applied at the time of the installation.
3. Design all signal supports using stress ratios that do not exceed 0.9.
4. The camber design for mast arm deflection should provide an appearance of a low pitched arch where the tip or the free end of the mast arm does not deflect below horizontal when fully loaded.
5. A clamp-type bolted mast arm-to-pole connection may be used instead of the welded ring stiffened box connection shown as long as the connection meets all of the design requirements.
6. Design base plate with 8 anchor bolt holes. Provide 2 inch x 60 inch anchor bolts.
7. The mast arm attachment height (H1) shown is based on the following design assumptions:
   a. Mast arm slope and deflection are not considered in determining the arm attachment height as they are assumed to offset each other.
   b. Signal heads attached to the mast arm are rigid mounted and vertically centered on the arm.
   c. The roadway clearance height for design is as shown in the elevation views.
   d. The top of the pole base plate is .75 feet above the ground elevation.
   e. Refer to the Elevation Data chart for elevation differences between the proposed foundation ground level and the high point on the roadway.
8. The pole manufacturer will determine the total height (H2) of each pole using the greater of the following:
   - Mast arm attachment height (H1) plus 2 feet, or
   - H1 plus 1/2 of the total height of the mast arm attachment assembly plus 1 foot.
9. If pole location adjustments are required, the contractor must gain approval from the engineer as this may affect the mast arm lengths and arm attachment heights. The contractor may contact the Signal Design Structural Engineer for assistance at (919) 773-2800.
10. The contractor is responsible for verifying that the mast arm length shown will allow proper positioning of the signal heads over the roadway.
11. The contractor is responsible for providing soil penetration testing data (SPT) to the pole manufacturer so site specific foundations can be designed.
12. The Contractor shall verify luminaire [illegible] before preparing shop drawings.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
FINAL DRAWING Date: 11/13/13
R. W. [signature]
Traffic Engineering Branch

NCDOT Wind Zone 4 (90 mph)

Prepared in the Offices of: Transportation Mobility and Safety Division, Signal Design Section, 750 N. Greenfield Pkwy, Garner, NC 27529

SR 1146 (Martin Luther King Jr. Parkway) at SR 2295 (Archdale Road)

PLAN DATE:	JUNE 2013	REVIEWED BY:	P NICHOLAS
PREPARED BY:	L TRACEY	REVIEWED BY:	

REVISIONS	INIT.	DATE

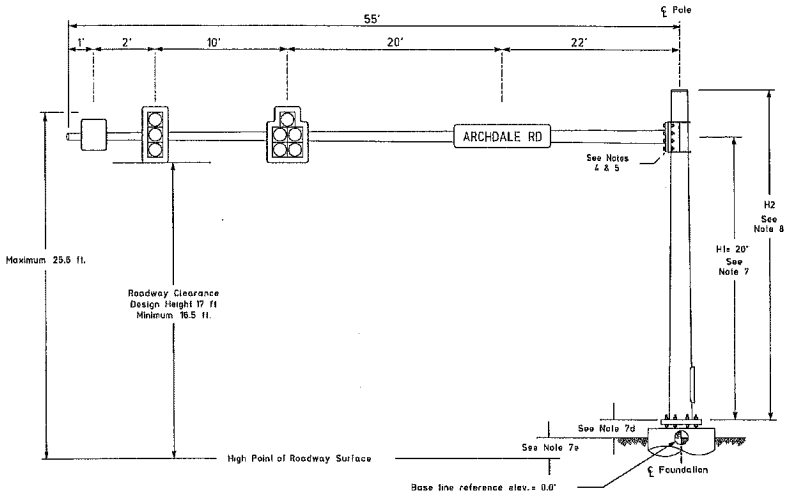
SCALE: 0 N/A — N/A

SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038734 LESLIE M. TRACEY

[signature] SIGNATURE 9-19-13 DATE

S.I.G. INVENTORY NO. 05-0052

Design Loading for METAL POLE NO. 2



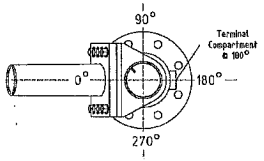
Elevation View

SPECIAL NOTE

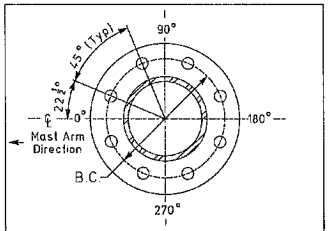
The contractor is responsible for verifying that the mast arm attachment height (H1) will provide the "Design Height" clearance from the roadway before submitting final shop drawings for approval. Verify elevation data below which was obtained by field measurement or from available project survey data.

Elevation Data for Mast Arm Attachment (H1)

Elevation Differences for	Pole 2
Baseline reference point at ℄ Foundation at ground level	0.0 ft
Elevation difference at High point of roadway surface	2.0 ft
Elevation difference at Edge of travelway or face of curb	1.0 ft.

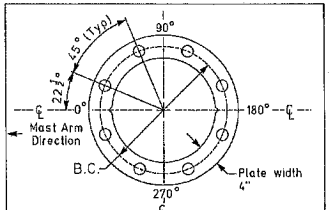


POLE RADIAL ORIENTATION



8 BOLT BASE PLATE DETAIL

See Note 6



BASE PLATE TEMPLATE & ANCHOR BOLT LOCK PLATE DETAIL

For 8 Bolt Base Plate

METAL POLE No. 2

PROJECT REFERENCE NO.	SHEET NO.
	Sig 4

MAST ARM LOADING SCHEDULE

LOADING SYMBOL	DESCRIPTION	AREA	SIZE	WEIGHT
	SIGNAL HEAD 12"-5 SECTION-WITH BACKPLATE AND ASTRO-BRAC	16.3 S.F.	42.0" W X 56.0" L	103 LBS
	SIGNAL HEAD 12"-4 SECTION-WITH BACKPLATE AND ASTRO-BRAC	11.5 S.F.	25.5" W X 66.0" L	74 LBS
	SIGNAL HEAD 12"-3 SECTION-WITH BACKPLATE AND ASTRO-BRAC	9.3 S.F.	25.5" W X 52.5" L	60 LBS
	SIGN RIGID MOUNTED WITH ASTRO-SIGN-BRAC	5.0 S.F.	24.0" W X 30.0" L	11 LBS
STREET NAME SIGN	STREET NAME SIGN RIGID MOUNTED WITH ASTRO-SIGN-BRAC	12.0 S.F.	18.0" W X 96.0" L	27 LBS

NOTES

Design Reference Material

1. Design the traffic signal structure and foundation in accordance with:
   - The 5th Edition 2009 AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires, and Traffic Signals, including all of the latest interim revisions.
   - The 2012 NCDOT "Standard Specifications for Roads and Structures". The latest addenda to these specifications can be found in the traffic signal project special provisions.
   - The 2012 NCDOT Roadway Standard Drawings.
   - The traffic signal project plans and special provisions.
   - The NCDOT "Metal Pole Standards" located at the following NCDOT website. http://www.ncdot.org/doh/preconstruct/traffic/ITSS/ws/mpoles/poles.html

Design Requirements

2. Design the traffic signal structure using the loading conditions shown in the elevation views. These are anticipated worst case "Design loads" and may not represent the actual loads that will be applied at the time of the installation. The contractor should refer to the traffic signal plans for the actual loads that will be applied at the time of the installation.
3. Design all signal supports using stress ratios that do not exceed 0.9.
4. The camber design for mast arm deflection should provide an appearance of a low pitched arch where the tip or the free end of the mast arm does not deflect below horizontal when fully loaded.
5. A clamp-type bolted mast arm-to-pole connection may be used instead of the welded ring stiffened box connection shown as long as the connection meets all of the design requirements.
6. Design base plate with 8 anchor bolt holes. Provide 2 inch x 60 inch anchor bolts.
7. The mast arm attachment height (H1) shown is based on the following design assumptions.
   a. Mast arm slope and deflection are not considered in determining the arm attachment height as they are assumed to offset each other.
   b. Signal heads attached to the mast arm are rigid mounted and vertically centered on the arm.
   c. The roadway clearance height for design is as shown in the elevation views.
   d. The top of the pole base plate is .75 feet above the ground elevation.
   e. Refer to the Elevation Data chart for elevation differences between the proposed foundation ground level and the high point on the roadway.
8. The pole manufacturer will determine the total height (H2) of each pole using the greater of the following:
   - Mast arm attachment height (H1) plus 2 feet, or
   - H1 plus 1/2 of the total height of the mast arm attachment assembly plus 1 foot.
9. If pole location adjustments are required, the contractor must gain approval from the engineer as this may affect the mast arm lengths and arm attachment heights. The contractor may contact the Signal Design Structural Engineer for assistance at (919) 773-2800.
10. The contractor is responsible for verifying that the mast arm length shown will allow proper positioning of the signal heads over the roadway.
11. The contractor is responsible for providing soil penetration testing data (SPT) to the pole manufacturer so site specific foundations can be designed.

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
FINAL DRAWING Date: 11/13/13
R. V. Murphy
Traffic Engineering Branch

NCDOT Wind Zone 4 (90 mph)

Prepared in the Offices of:
750 N Greenfield Pkwy, Garner, NC 27529

SCALE: 0 N/A N/A

SR 1146 (Martin Luther King Jr. Parkway) at SR 2295 (Archdale Road)

PLAN DATE: JUNE 2013 | REVIEWED BY: P NICHOLAS
PREPARED BY: L TRACEY | REVIEWED BY:

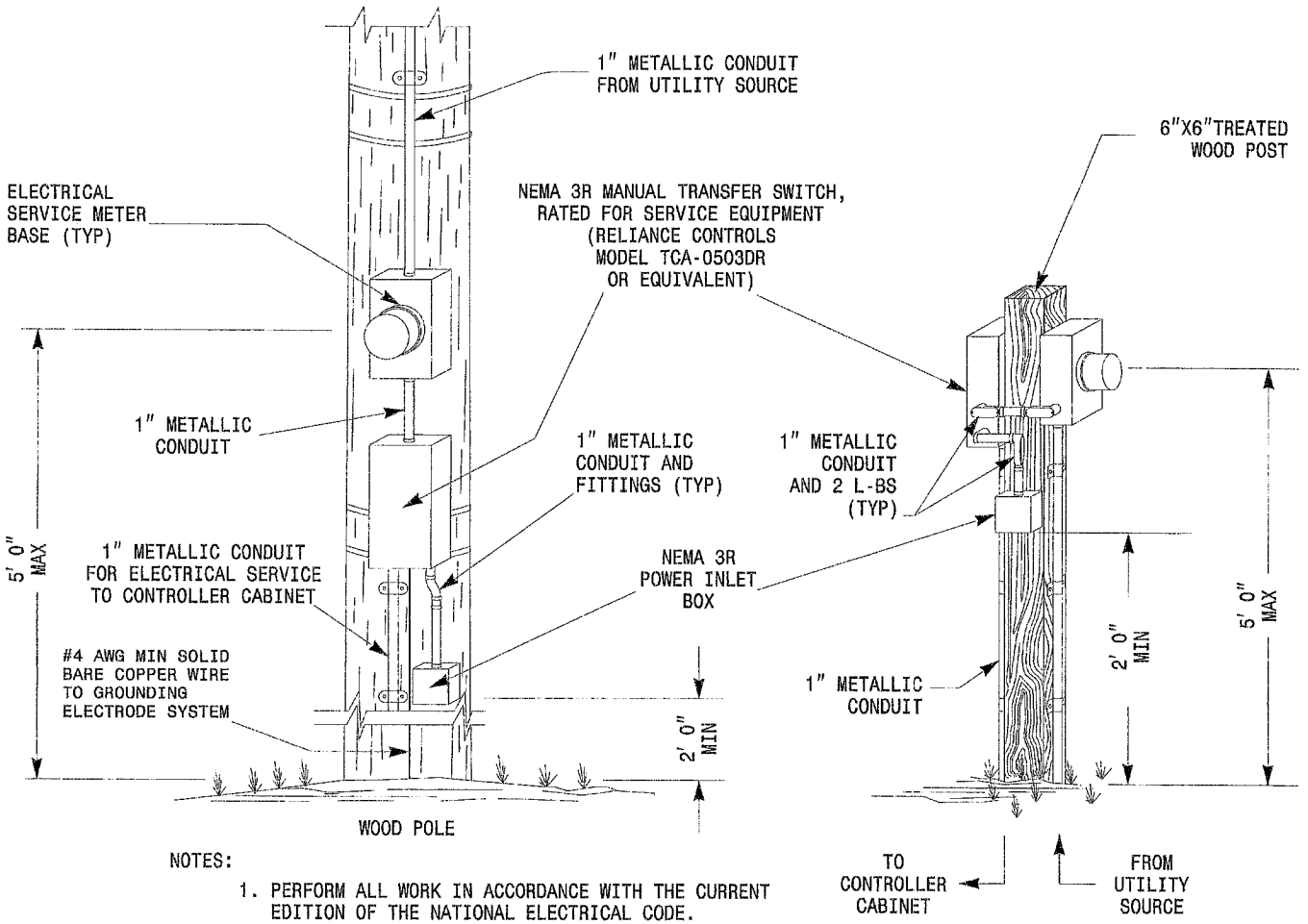
REVISIONS	INT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 038734 JESSE M. TRACEY

SIGNATURE
9-19-13
DATE

SIG INVENTORY NO. 05-0052

PROJECT REFERENCE NO.	SHEET NO.
U-5150	Sig 3



NOTES:

1. PERFORM ALL WORK IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE.
2. PROVIDE LOCKABLE POWER INLET BOX WITH L14-30P THAT RETAINS NEMA 3R RAINPROOF RATING WITH GENERATOR CORD SET CONNECTED.
3. A COMBINATION METER BASE, TRANSFER SWITCH, AND POWER INLET MAY BE USED WITH APPROVAL OF THE ENGINEER.
4. REFER TO NCDOT ROADWAY STANDARD DRAWINGS 1700.01 AND 1700.02 FOR GROUNDING ELECTRODE SYSTEM REQUIREMENTS.
5. REFER TO SHEET 2 FOR BONDING REQUIREMENTS.

SHEET 1 OF 2

Prepared in the Office of: Traffic Engineering Branch, 1020 Birch Ridge Drive, Raleigh, NC 27610

TYPICAL ELECTRICAL SERVICE FOR TRAFFIC SIGNALS WITH EMERGENCY GENERATOR PROVISIONS

PLAN DATE: DECEMBER 2006 | REVIEWED BY:
PREPARED BY: J.T.ROWE | REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL

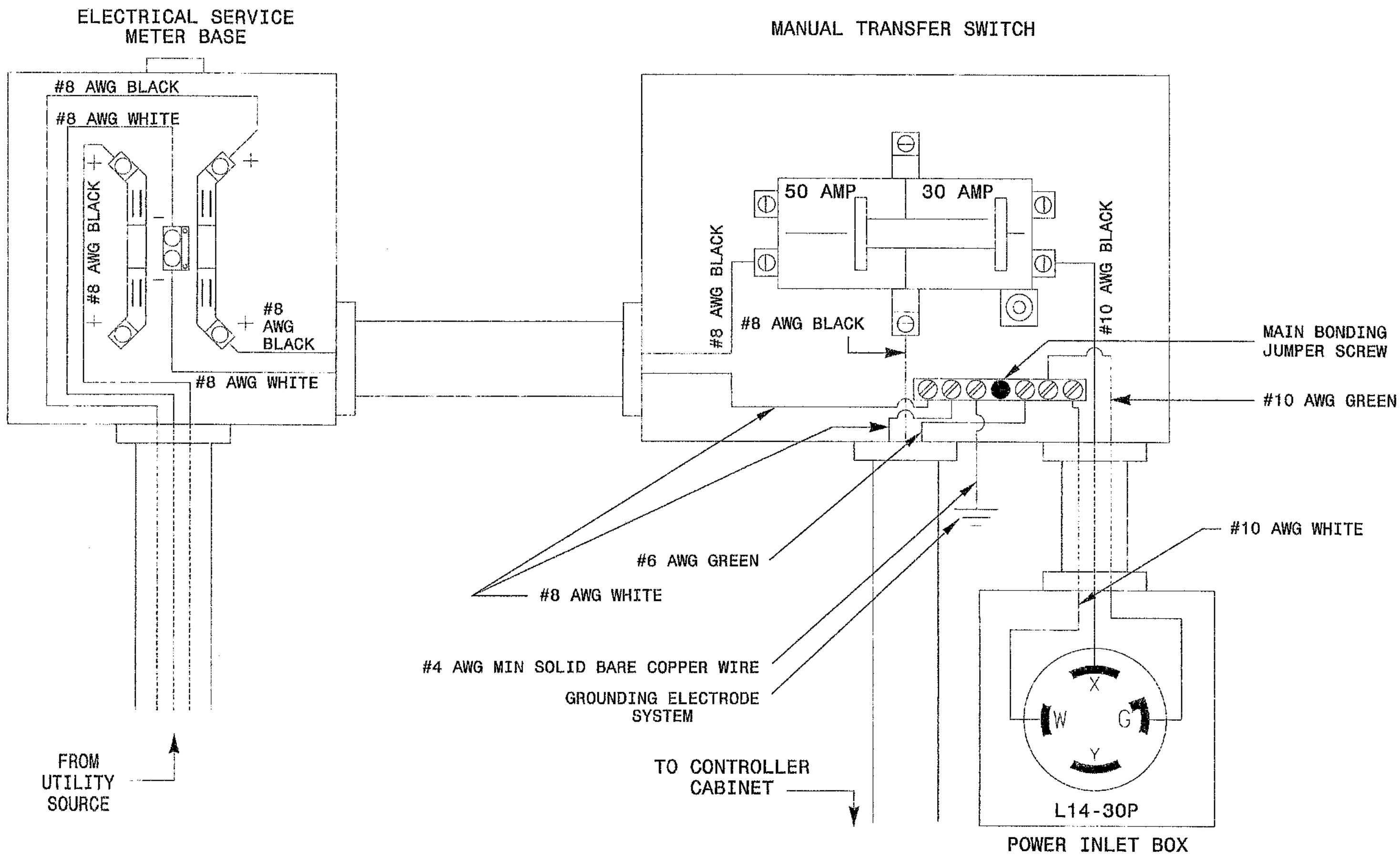
This document originally issued and sealed by Gregory A. Fuller, #023819, on 01/01/07. This media shall not be considered a certified document.

SIGNATURE | DATE

SIG. INVENTORY NO.

PROJECT REFERENCE NO.	SHEET NO.
U-5150	Sig. 4

ELECTRICAL SCHEMATIC



SHEET 2 OF 2

NOTES: 1. BOND ALL RACEWAYS AND EQUIPMENT IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE.
2. ALL WIRES SHOWN SHALL BE STRANDED COPPER WITH THWN INSULATION, UNLESS OTHERWISE NOTED.

Prepared in the Offices of:
Signals Management Section
122 N. McDowell St., Raleigh, NC 27603

TYPICAL ELECTRICAL
SERVICE FOR TRAFFIC
SIGNALS WITH EMERGENCY
GENERATOR PROVISIONS

PLAN DATE:	DECEMBER 2006	REVIEWED BY:
PREPARED BY:	J.T. ROWE	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL

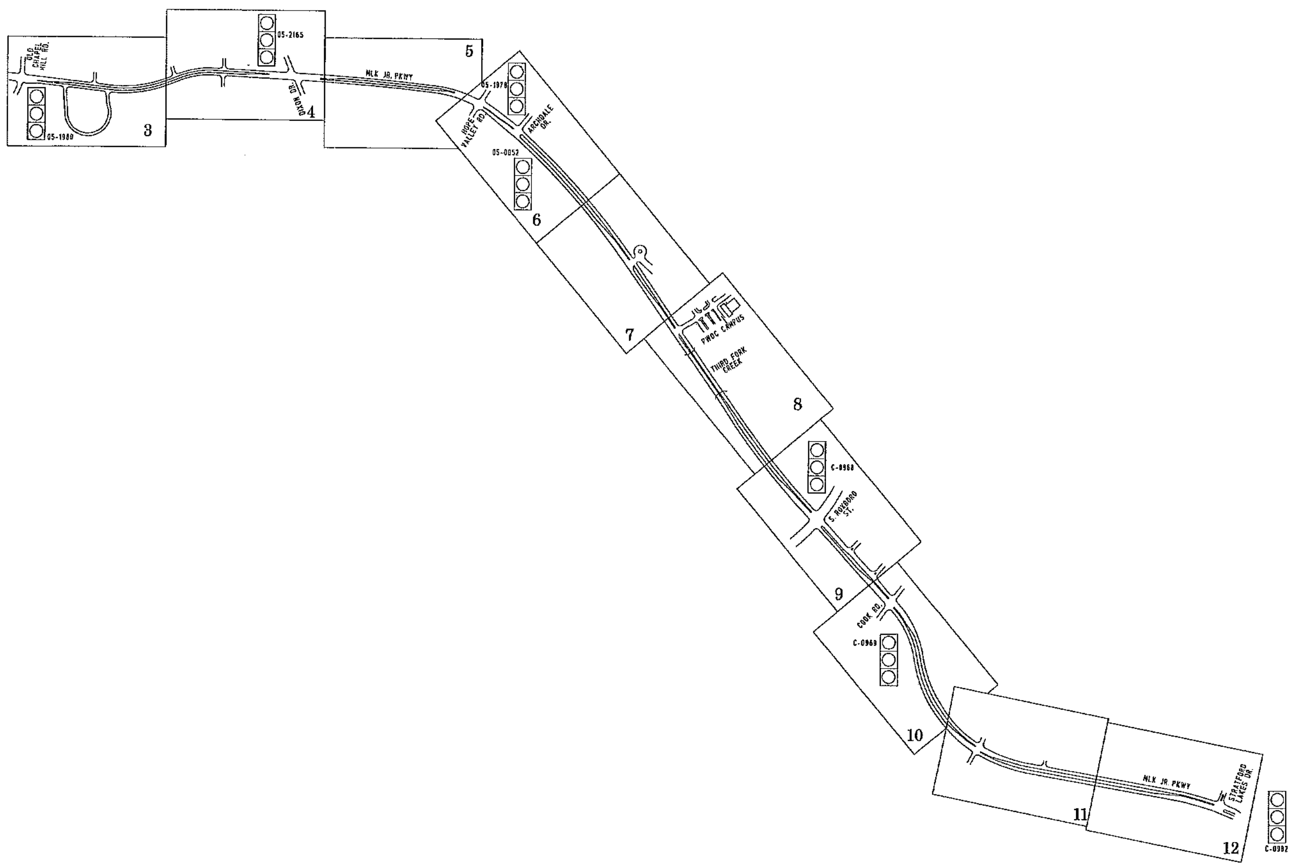
This document originally issued and sealed by Gregory A. Fuller, #023619, on 01/04/07. This media shall not be considered a certified document.

SIGNATURE DATE

SIG. INVENTORY NO.

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-1

SHEET KEY



COMMUNICATIONS CABLE ROUTING

CITY OF DURHAM TRANSPORTATION DEPARTMENT 101 City Hall Plaza Durham, NC 27701 Phone: (919) 560-4366	COMMUNICATIONS CABLE ROUTING PLAN M.L.K. JR. BOULEVARD & PWOC - SHEET KEY	SEAL
	DIVISION 05 DURHAM COUNTY DURHAM	NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS IV
	PLAN DATE: JULY 2013 / REVIEWED BY:	
	PREPARED BY: PJN / PROJ.NO:	
SCALE 0 N/A 1" =50'	REVISIONS / INIT. / DATE	SIGNATURE / DATE 12-6-13
		FILE NAME: MLKcablerouting.dgn

DURHAM 1869 CITY OF MEDICINE
101 City Hall Plaza
Durham, NC 27701
(919) 560-4366

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-2

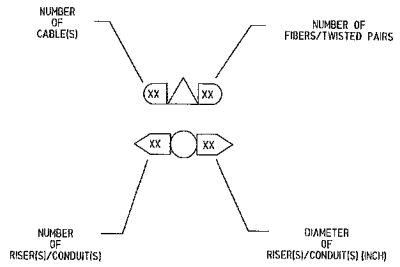
1. INSTALL REA, PE - 22, SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
2. INSTALL REA, PE - 38, (FIGURE - 8) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
3. INSTALL REA, PE - 39, (UNDERGROUND) SHIELDED, TWISTED PAIR COMMUNICATIONS CABLE
4. INSTALL SMFO CABLE
5. INSTALL MMFO CABLE
6. INSTALL FIBER OPTIC DROP CABLE
7. INSTALL TRACER WIRE
8. TRENCH
9. INSTALL PVC CONDUIT
10. INSTALL RIGID, GALVANIZED STEEL CONDUIT
11. INSTALL RIGID, GALVANIZED STEEL RISER WITH WEATHERHEAD
12. INSTALL RIGID, GALVANIZED STEEL RISER WITH FIBER OPTIC CABLE SEAL
13. INSTALL OUTER-DUCT POLYETHYLENE CONDUIT
14. INSTALL POLYETHYLENE CONDUIT
15. DIRECTIONAL DRILL CONDUIT
16. BORE AND JACK CONDUIT
17. INSTALL CABLE(S) IN EXISTING CONDUIT
18. INSTALL CABLE(S) IN NEW CONDUIT
19. INSTALL CABLE(S) IN EXISTING RISER
20. INSTALL CABLE(S) IN NEW RISER/STRAIN POLE
21. INSTALL CABLE(S) IN EXISTING CONDUIT STUBOUTS
22. INSTALL NEW CONDUIT INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)
23. INSTALL NEW RISER INTO EXISTING CABINET BASE (USE EXISTING CONDUIT STUB-OUTS WHEN AVAILABLE)
24. INSTALL NEW CONDUIT INTO EXISTING POLE MOUNTED CABINET
25. INSTALL NEW RISER INTO EXISTING POLE MOUNTED CABINET
26. TERMINATE COMMUNICATIONS CABLE ON EXISTING TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET
27. INSTALL NEW TELEMETRY INTERFACE PANEL IN TRAFFIC SIGNAL CONTROLLER CABINET
28. INSTALL INTERCONNECT CENTER, PATCH PANEL, JUMPERS, AND FUSION SPLICE CABLE IN CABINET
29. INSTALL UNDERGROUND SPLICE ENCLOSURE
30. INSTALL AERIAL SPLICE ENCLOSURE
31. INSTALL POLE MOUNTED SPLICE CABINET
32. INSTALL BASE MOUNTED SPLICE CABINET
33. REMOVE EXISTING SPLICE CABINET
34. INSTALL CABINET FOUNDATION
35. REMOVE EXISTING CABINET FOUNDATION
36. INSTALL CCTV CAMERA ASSEMBLY
37. INSTALL CCTV CAMERA WOOD POLE
38. INSTALL CCTV CAMERA METAL POLE AND FOUNDATION
39. INSTALL JUNCTION BOX
40. INSTALL OVERSIZED JUNCTION BOX
41. REMOVE EXISTING JUNCTION BOX
42. INSTALL WOOD POLE
43. REMOVE EXISTING WOOD POLE
44. INSTALL AERIAL GUY ASSEMBLY
45. INSTALL STANDARD GUY ASSEMBLY
46. INSTALL SIDEWALK GUY ASSEMBLY
47. INSTALL MESSENGER CABLE
48. REMOVE EXISTING COMMUNICATIONS CABLE AND MESSENGER CABLE
49. REMOVE EXISTING COMMUNICATIONS CABLE
50. INSTALL TELEPHONE SERVICE
51. INSTALL CABLE STORAGE RACKS (SNOW SHOES) AND STORE 100 FEET OF CABLE
52. INSTALL DELINEATOR MARKER
53. STORE 60 FEET OF COMMUNICATIONS CABLE
54. LASH CABLE(S) TO EXISTING SIGNAL/COMMUNICATIONS CABLE
55. LASH CABLE(S) TO EXISTING MESSENGER CABLE
56. LASH CABLE(S) TO NEW MESSENGER CABLE
57. MODIFY EXISTING ELECTRICAL SERVICE
58. INSTALL NEW ELECTRICAL SERVICE
59. FIBER-OPTIC TRANSCEIVER (SERIAL - DROP ADD)

LEGEND

- F. O. — NEW FIBER OPTIC COMMUNICATIONS CABLE
- TWIST.PR. — NEW TWISTED PAIR COMMUNICATIONS CABLE
- EXIST — EXISTING COMMUNICATIONS CABLE
- REM. — EXISTING COMMUNICATIONS CABLE TO BE REMOVED
- NEW AERIAL GUY ASSEMBLY
- NEW CONDUIT
- EXISTING CONDUIT
- D D — NEW DIRECTIONAL DRILLED CONDUIT
- B & J — NEW BORED AND JACKED CONDUIT
- NEW JUNCTION BOX
- EXISTING JUNCTION BOX
- NEW WOOD POLE
- EXISTING WOOD POLE
- (S) NEW AERIAL SPLICE ENCLOSURE
- NEW METAL POLE
- EXISTING METAL POLE
- NEW CCTV CAMERA ASSEMBLY
- NEW STANDARD GUY ASSEMBLY
- NEW SIDEWALK GUY ASSEMBLY
- NEW CABLE STORAGE RACKS (SNOW SHOES)
- EXISTING CONTROLLER AND CABINET
- EXISTING SPLICE CABINET
- NEW SPLICE CABINET
- SP — SIGNAL POLE
- XX-XXXX — SIGNAL INVENTORY NUMBER

CONSTRUCTION NOTE SYMBOLOGY KEY

- (XX) INDICATES NUMBER OF CABLES, LOOPS, ETC.
- (XX) INDICATES NUMBER OF FIBERS PER CABLE, TWISTED PAIRS PER CABLE, ETC.
- XX INDICATES NUMBER OF RISER(S) / CONDUIT(S)
- XX INDICATES DIAMETER OF RISER(S) / CONDUIT(S) (INCH)



COMMUNICATIONS CABLE ROUTING

DURHAM — 1869 — CITY OF MEDICINE

101 City Hall Plaza, Durham, NC 27701, (919) 560-4366

CITY OF DURHAM
TRANSPORTATION DEPARTMENT

101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC - NOTES

DIVISION 05 — DURHAM COUNTY — DURHAM

PLAN DATE: JULY 2013 — REVIEWED BY:

PREPARED BY: PJH — PROJ NO.

SCALE: 0 N/A — 1" = 50'

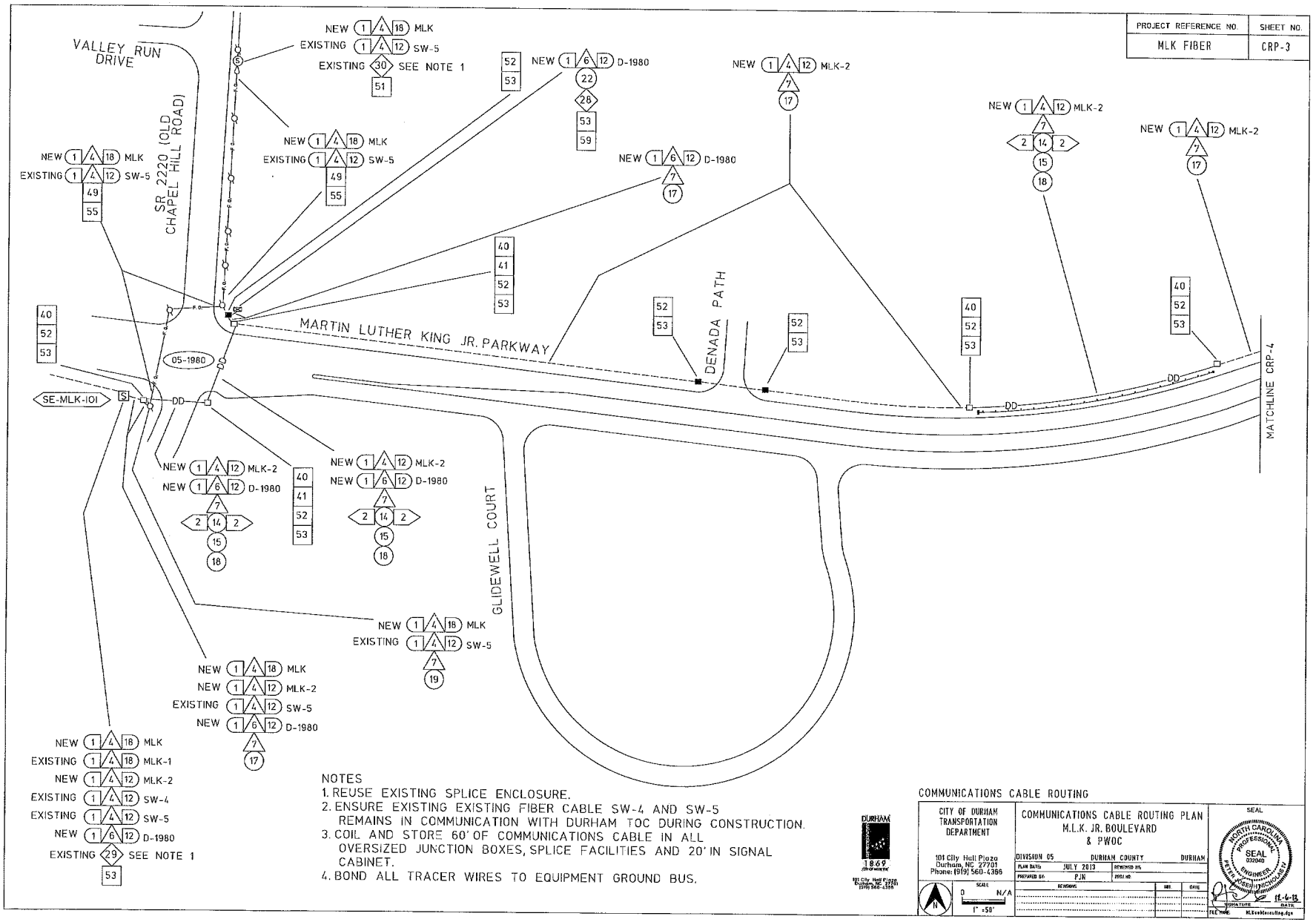
REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 032640 ENGINEER PETER JOSEPH NICHOLAS IV

SIGNATURE — DATE: 12-6-13

FILE NAME: MLKcablerouting.dgn



NOTES

1. REUSE EXISTING SPLICE ENCLOSURE.
2. ENSURE EXISTING EXISTING FIBER CABLE SW-4 AND SW-5 REMAINS IN COMMUNICATION WITH DURHAM TOC DURING CONSTRUCTION.
3. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
4. BOND ALL TRACER WIRES TO EQUIPMENT GROUND BUS.

COMMUNICATIONS CABLE ROUTING

CITY OF DURHAM
TRANSPORTATION DEPARTMENT
101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 | DURHAM COUNTY | DURHAM
PLAN DATED: JULY 2013 | REVISED ON:
PREPARED BY: PJN | PROJ NO.

SCALE: 1" = 50' | N/A

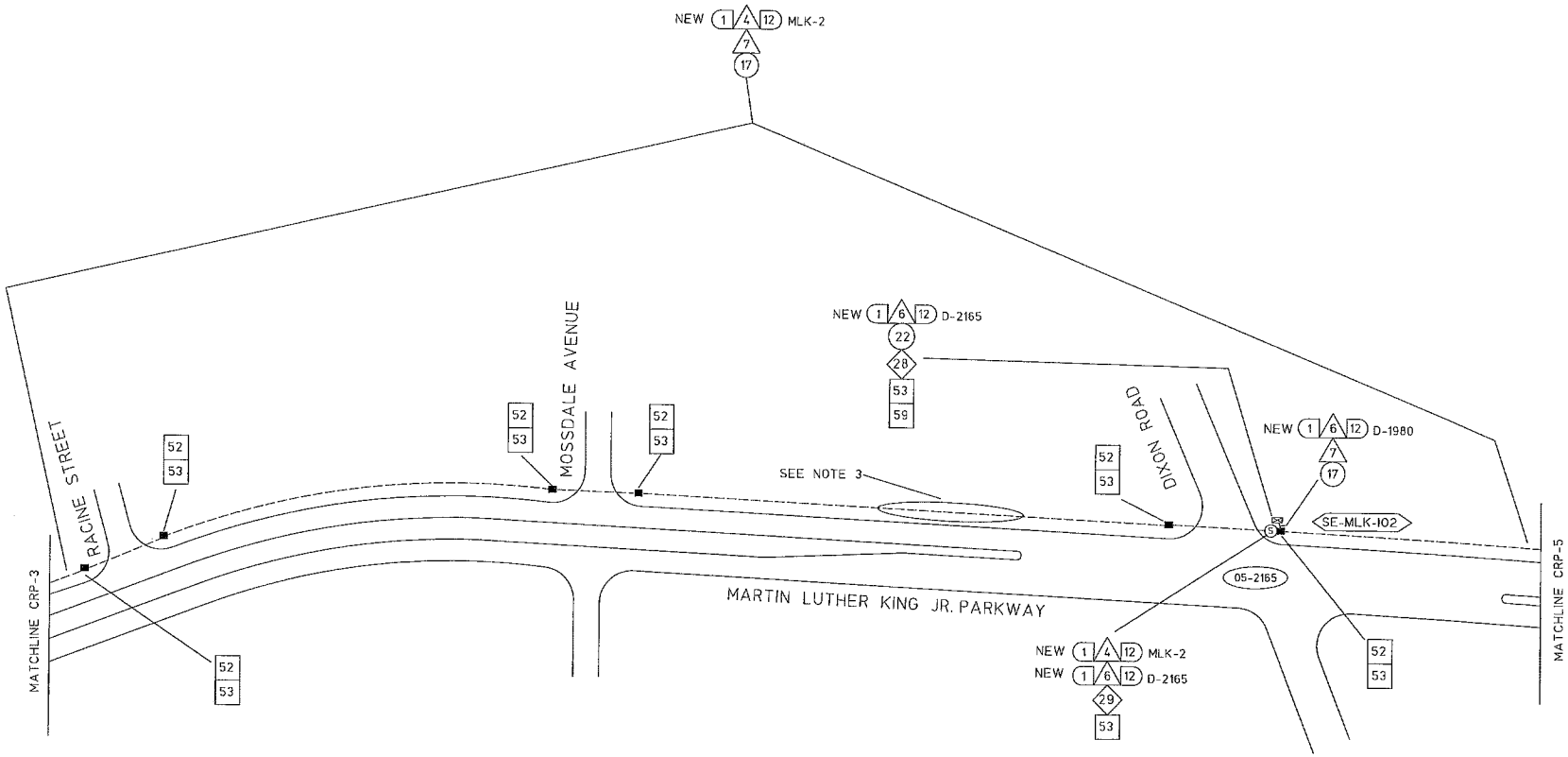
REVISIONS | BY | DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030940

SIGNATURE | DATE 11-6-13

FILE NAME: MLKcomRoutingPlan.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-4



NOTES
1. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
2. BOND ALL TRACER WIRES TO EQUIPMENT GROUND BUS.
3. CITY FORCES WILL REPAIR CONDUIT DAMAGE WITHIN THE NOTED AREA PRIOR TO CONSTRUCTION

COMMUNICATIONS CABLE ROUTING

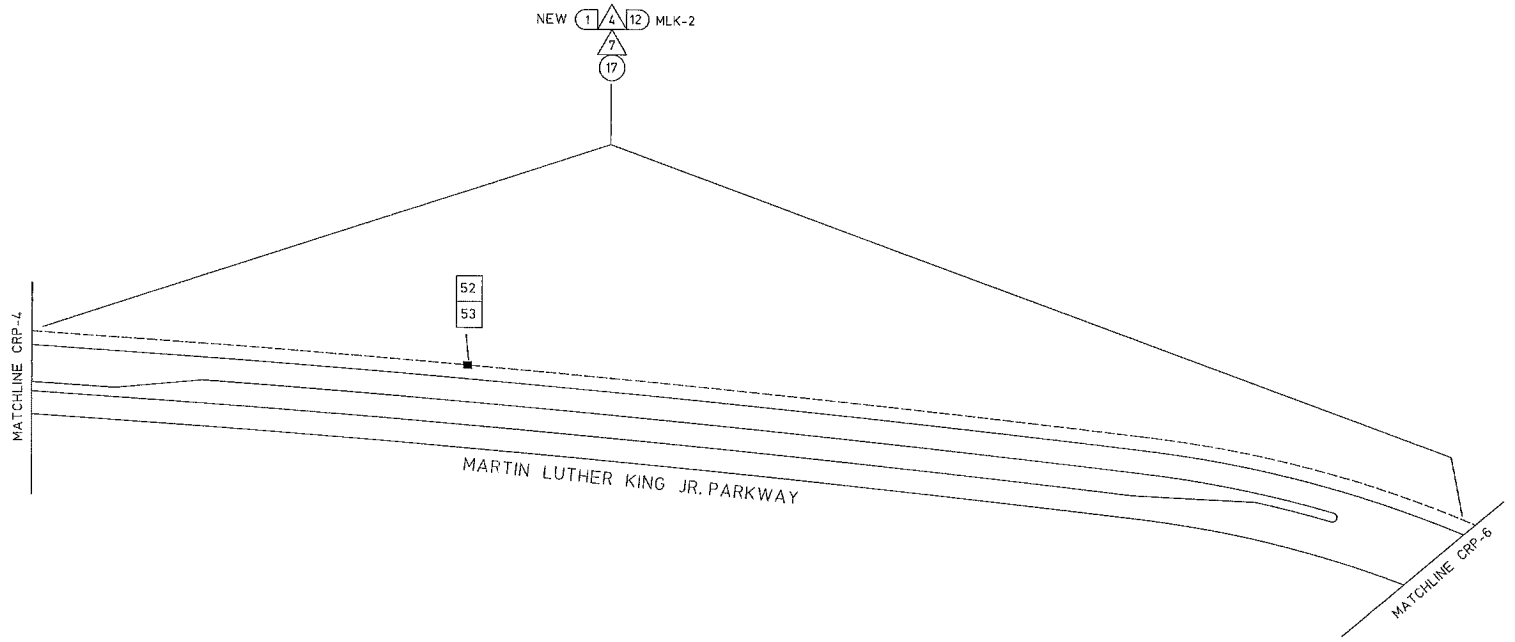
CITY OF DURHAM
TRANSPORTATION DEPARTMENT
101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 DURHAM COUNTY DURHAM
PLAN DATE: JULY 2013 REVIEWED BY:
PREPARED BY: PJN FIRM NO:
SCALE 0 N/A 1" =50'
REVISIONS BY DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER
SIGNATURE DATE
FILE NAME: MLKcablerouting.dgn

PROJECT REFERENCE NO	SHEET NO.
MLK FIBER	CRP-5



COMMUNICATIONS CABLE ROUTING

DURHAM 1869

CITY OF DURHAM
TRANSPORTATION
DEPARTMENT

101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05	DURHAM COUNTY	DURHAM
PLAN DATE: JULY 2013	REVIEWED BY:	
PREPARED BY: PJN	TRACING:	

SCALE
0 N/A
1" =50'

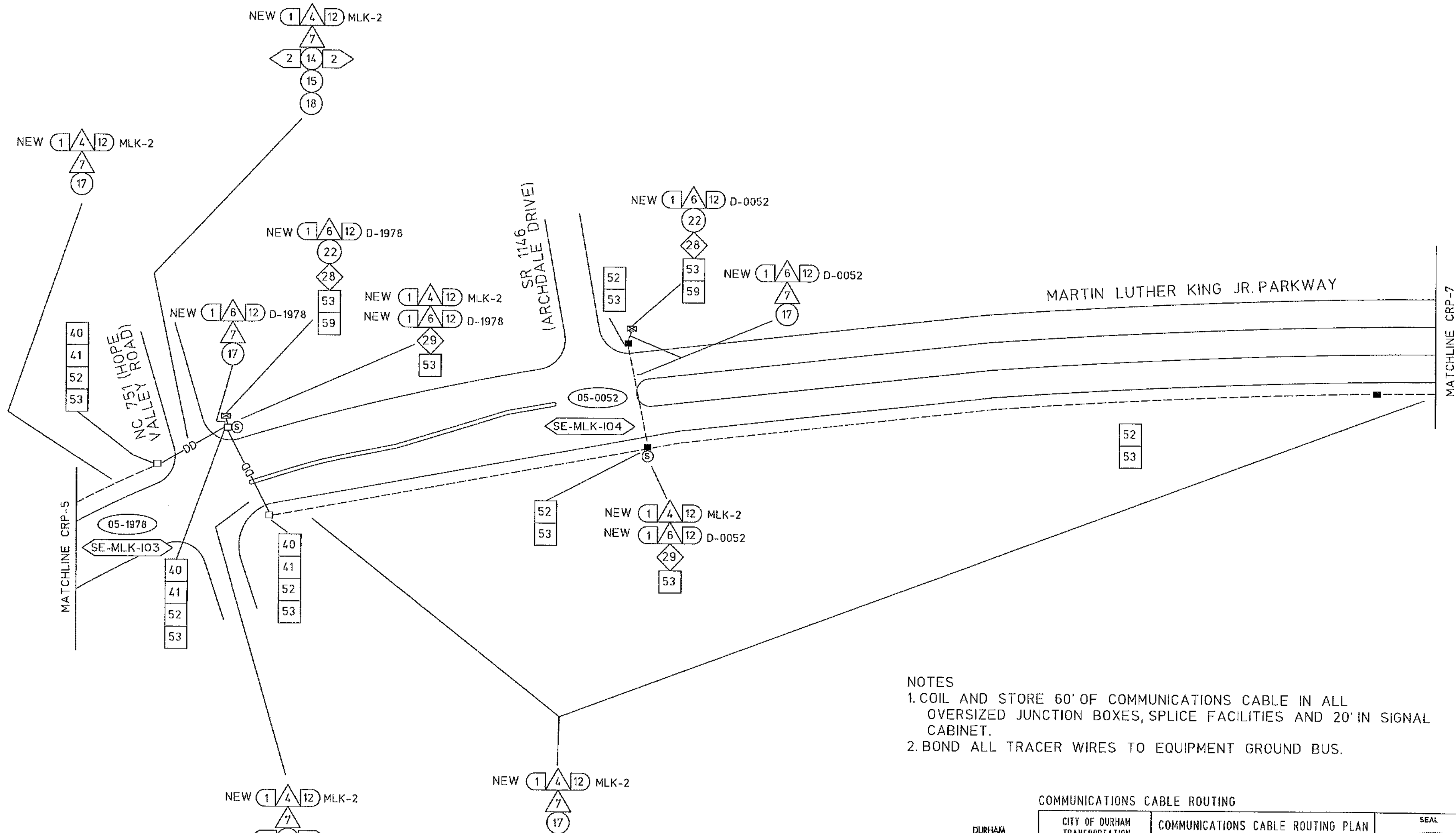
REVISIONS	INIT.	DATE

SEAL

SIGNATURE DATE

FILE NAME: MLKcablerouting.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-6



NOTES
1. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
2. BOND ALL TRACER WIRES TO EQUIPMENT GROUND BUS.

COMMUNICATIONS CABLE ROUTING

DURHAM 1869 CITY OF MEDICINE

CITY OF DURHAM
TRANSPORTATION DEPARTMENT
101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

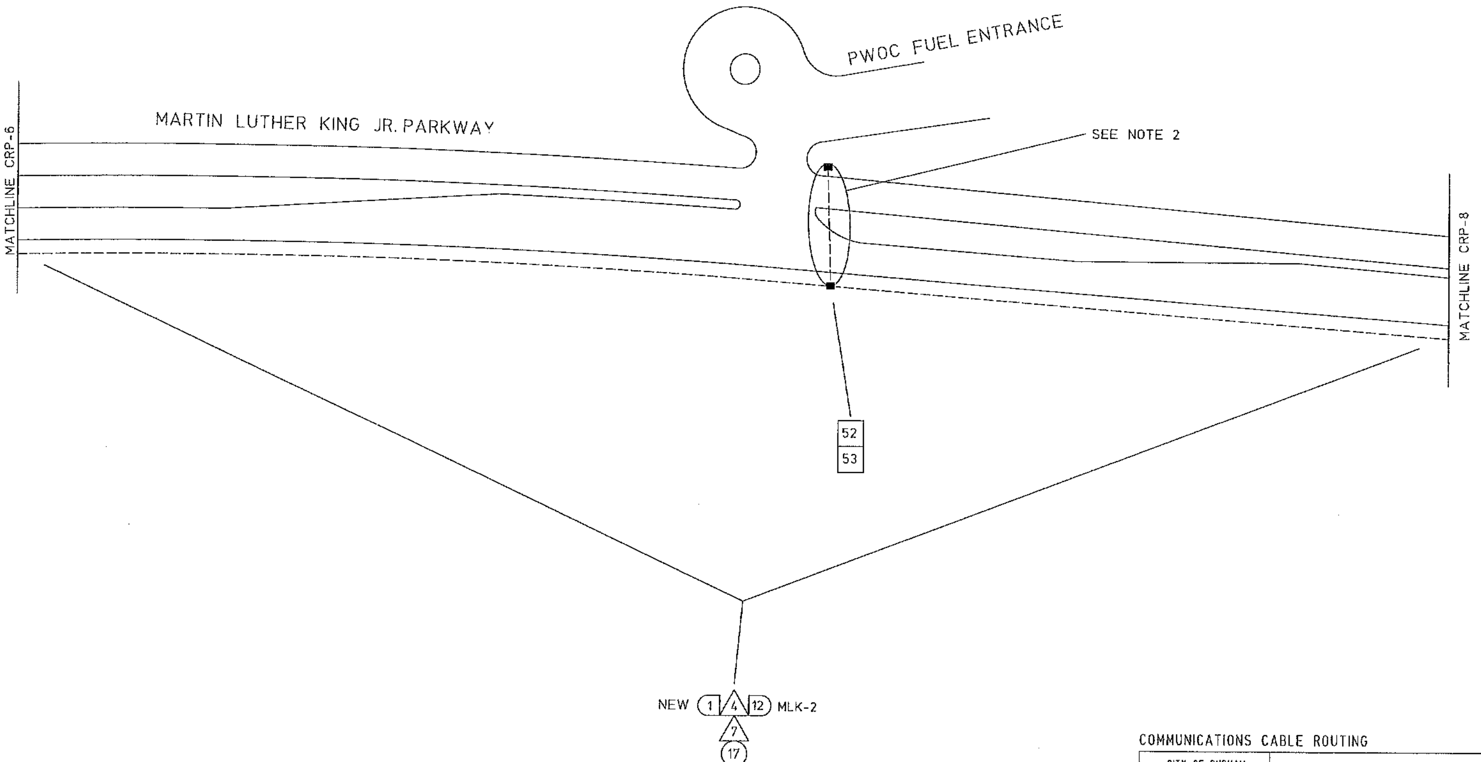
DIVISION 05 DURHAM COUNTY DURHAM
PLAN DATE: JULY 2013 REVIEWED BY:
PREPARED BY: PJN

SCALE 0 N/A 1" = 50'

REVISIONS | INIT. | DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS IV
SIGNATURE 12-6-13 DATE
FILE NAME: MLKcablerouting.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-7



NOTES
1. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
2. SPARE CONDUIT AND JUNCTION BOX ARE RESERVED FOR FUTURE USE.

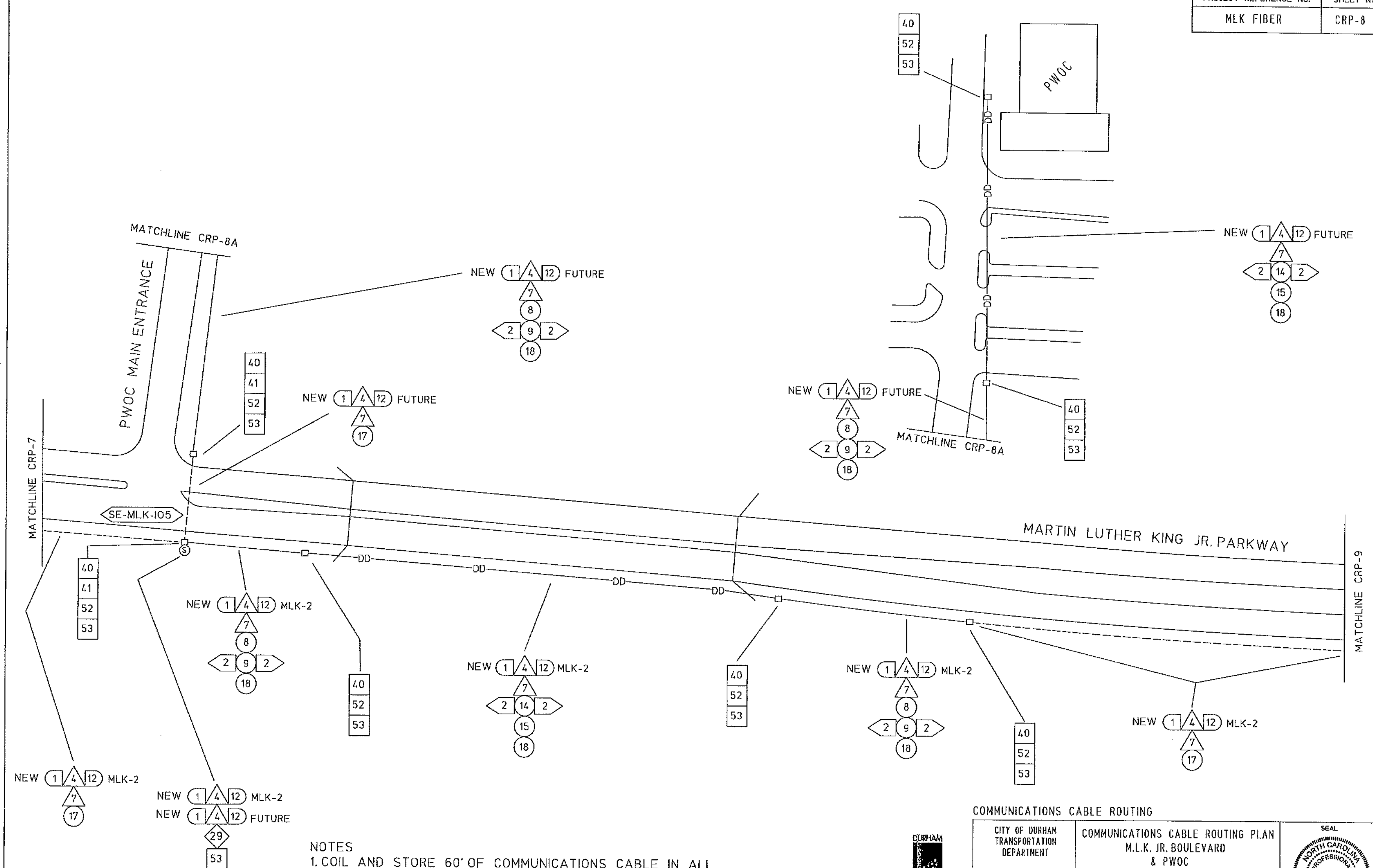
COMMUNICATIONS CABLE ROUTING

DURHAM 1869

101 City Hall Plaza
Durham, NC 27701
(919) 560-4366

CITY OF DURHAM TRANSPORTATION DEPARTMENT 101 City Hall Plaza Durham, NC 27701 Phone: (919) 560-4366	COMMUNICATIONS CABLE ROUTING PLAN M.L.K. JR. BOULEVARD & PWOC	SEAL
	DIVISION 05 DURHAM COUNTY DURHAM	NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS IV
	PLAN DATE: JULY 2013	REVIEWED BY:
	PREPARED BY: PJN	PROJ. NO.
SCALE 0 N/A 1" =50'	REVISIONS	BY	DATE
	SIGNATURE	DATE 12-6-13
	FILE NAME: MLKcableroutiing.dgn	

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-8



NOTES

1. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
2. BOND ALL TRACER WIRES TO EQUIPMENT GROUND BUS.

COMMUNICATIONS CABLE ROUTING

CITY OF DURHAM
TRANSPORTATION
DEPARTMENT

101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 DURHAM COUNTY DURHAM
PLAN DATE: JULY 2013
PREPARED BY: PJN

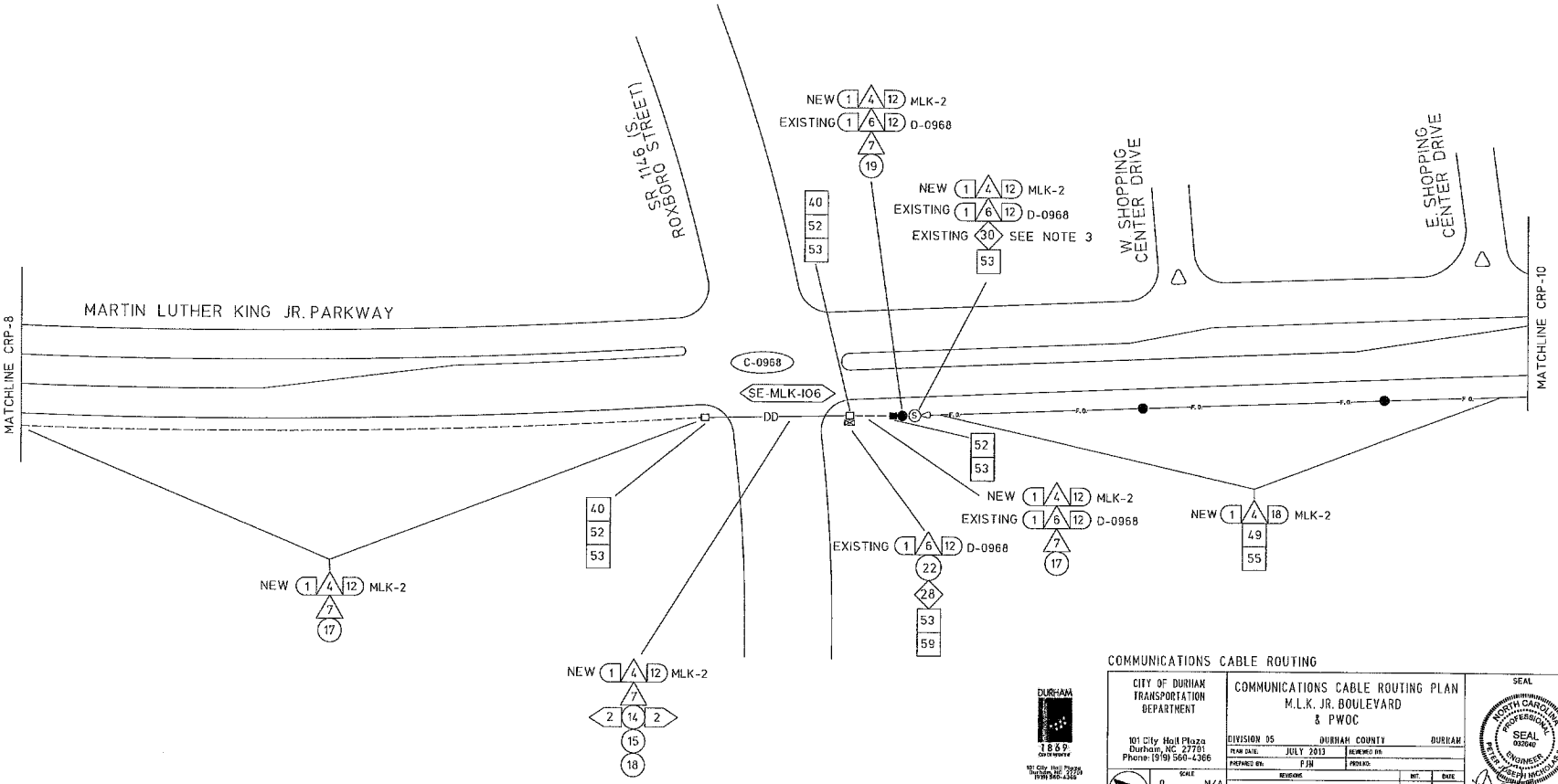
SCALE 0 N/A 1" = 50'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS IV

12-6-13

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-9

NOTES
1. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
2. BOND ALL TRACER WIRES TO EQUIPMENT GROUND BUS.
3. RESUE EXISTING AERIAL SPLICE ENCLOSURE. UNLASH AND REATTACH EXISTING FIBER (WITH ADEQUATE SLACK) TO EXISTING MESSENGER/SNOWSHOE.



COMMUNICATIONS CABLE ROUTING

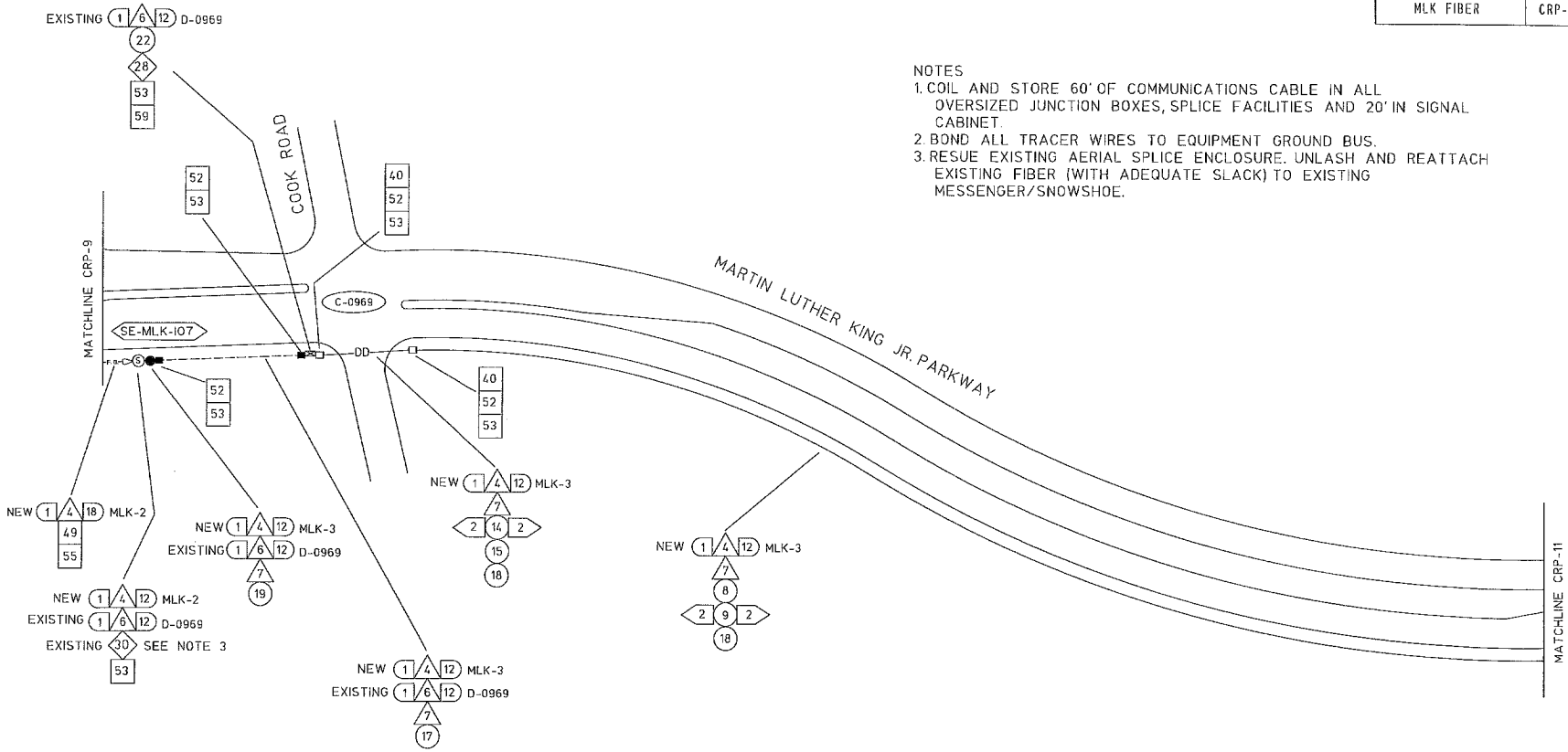
CITY OF DURHAM TRANSPORTATION DEPARTMENT
101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 | DURHAM COUNTY | DURHAM
PLAN DATE: JULY 2013 | REVIEWED BY:
PREPARED BY: PJW | PROJECT:
SCALE: 1" = 50' | 0 N/A
REVISIONS | INIT. | DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032640 ENGINEER PETER JOSEPH MICHELSEN
SIGNATURE 12-6-13 DATE
FILE NAME: MLKcablerouting.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-10



NOTES
1. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
2. BOND ALL TRACER WIRES TO EQUIPMENT GROUND BUS.
3. RESUE EXISTING AERIAL SPLICE ENCLOSURE. UNLASH AND REATTACH EXISTING FIBER (WITH ADEQUATE SLACK) TO EXISTING MESSENGER/SNOWSHOE.

COMMUNICATIONS CABLE ROUTING

DURHAM 1869

CITY OF DURHAM
TRANSPORTATION DEPARTMENT
101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 | DURHAM COUNTY | DURHAM
PLAN DATE: JULY 2013 | REVIEWED BY:
PREPARED BY: PJH | PROJ NO.:

SCALE: 0 N/A
1" =50'

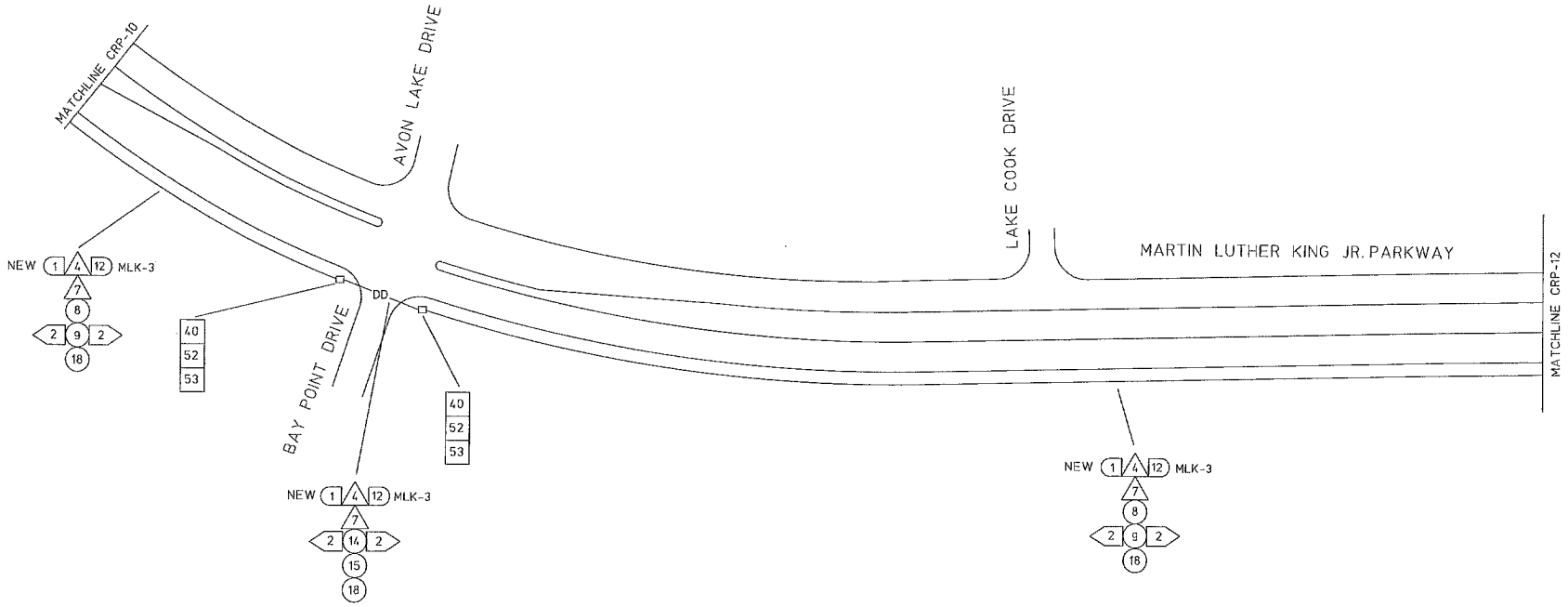
REVISIONS	INT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS

SIGNATURE 12-6-13 DATE

FILE NAME: MLKcablerevised.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-11



NOTES
1. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
2. BOND ALL TRACER WIRES TO EQUIPMENT GROUND BUS.

COMMUNICATIONS CABLE ROUTING

DURHAM 1869

CITY OF DURHAM
TRANSPORTATION DEPARTMENT
101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4365

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 | DURHAM COUNTY | DURHAM
PLAN DATE: JULY 2013 | REVIEWED BY:
PREPARED BY: PJN | PROJ NO.

SCALE: 0 N/A 1" =50'

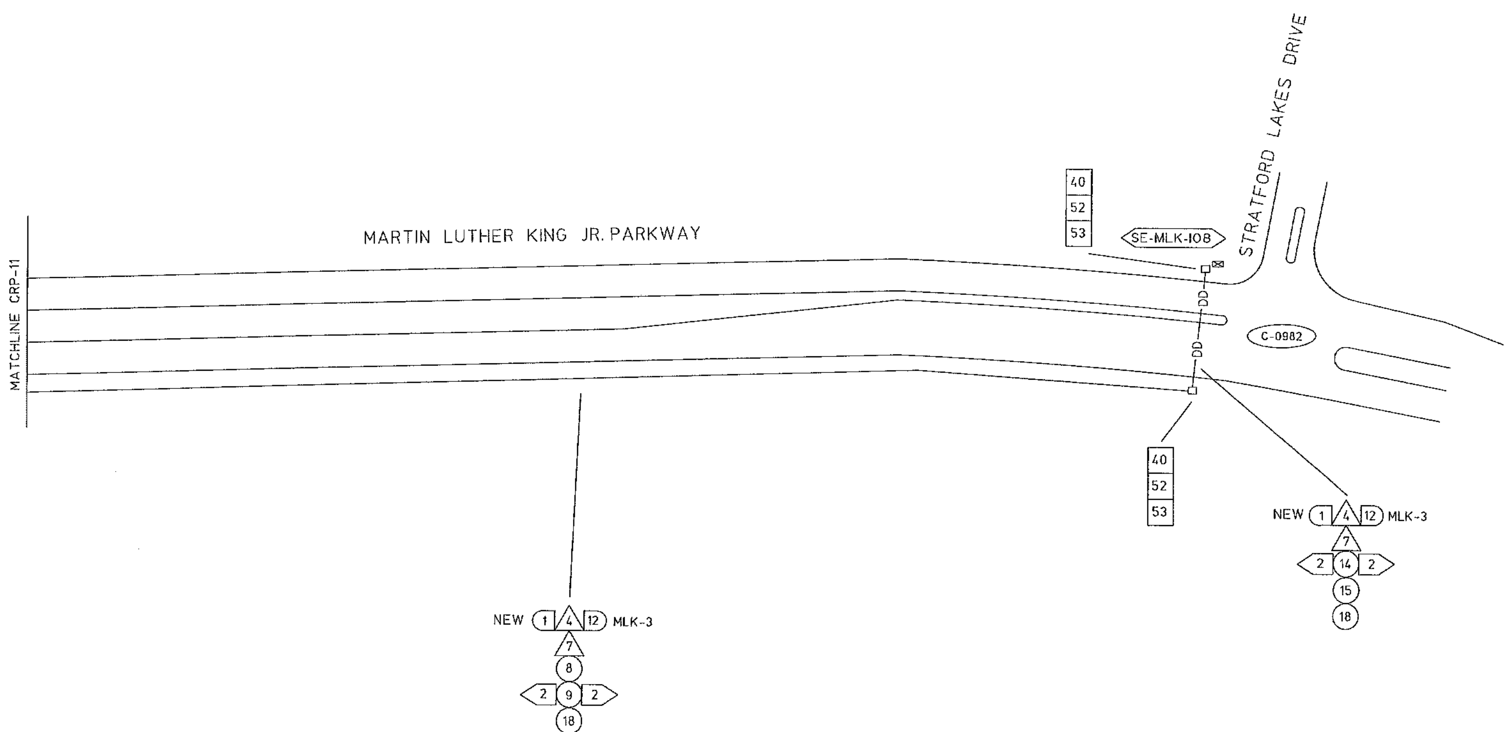
REVISIONS	INIT	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLSON IV
SIGNATURE
DATE 12-6-13
FILENAME: MLKcableroutingplan.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-12

NOTES

1. COIL AND STORE 60' OF COMMUNICATIONS CABLE IN ALL OVERSIZED JUNCTION BOXES, SPLICE FACILITIES AND 20' IN SIGNAL CABINET.
2. BOND ALL TRACER WIRES TO EQUIPMENT GROUND BUS.



COMMUNICATIONS CABLE ROUTING

CITY OF DURHAM
TRANSPORTATION
DEPARTMENT

101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

COMMUNICATIONS CABLE ROUTING PLAN
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 DURHAM COUNTY DURHAM

PLAN DATE: JULY 2013	REVIEWED BY:
PREPARED BY: PJN	PROJ. NO:

SCALE 0 N/A 1" =50'

REVISIONS	INIT.	DATE

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS IV

SIGNATURE DATE 12-6-13

FILE NAME: MLKcableroutling.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-13

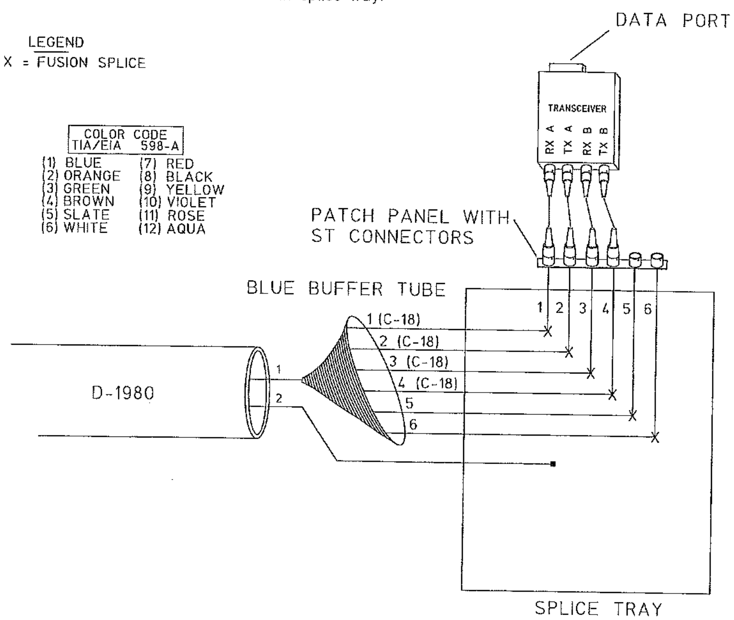
FIBER DROP AT
MLK PARKWAY
AT OLD CHAPEL HILL DRIVE

SIG. INV 05-1980

Notes:
Unused fibers left coiled and stored in splice tray.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



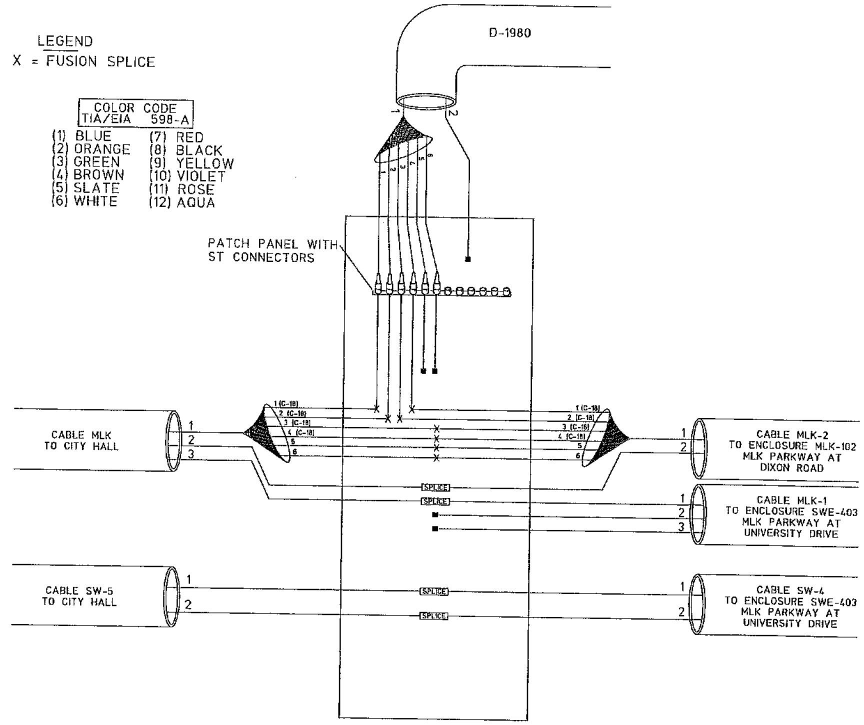
SPLICE ENCLOSURE
MLK 101
MLK PARKWAY
AT OLD CHAPEL HILL DRIVE

SIG. INV 05-1980

Notes: Unused fibers left coiled and stored in enclosure.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



UNDERGROUND SPLICE ENCLOSURE
MLK-101

1. CONTRACTOR SHALL INSTALL A TRANSCEIVER THAT IS COMPATABLE WITH THE EXISTING SIGNAL SYSTEM.
2. CONTRACTOR IS RESPONSIBLE FOR ASSURING COMMUNICATIONS TO DURHAM TRAFFIC OPERATIONS CENTER ARE STABLE. IN THE EVENT COMMUNICATIONS CANNOT BE ESTABLISHED ACCORDING TO SPLICING DETAILS THE CONTRACTOR SHALL MODIFY SPLICING AND PLANS AS DIRECTED BY THE CITY TRAFFIC ENGINEER AND PROVIDE AND/ALL AS BUILT DRAWINGS.
3. CONTRACTOR SHALL TERMINATE ALL SPARE FIBERS AT THE PATCH PANEL AND SPLICE ALL FIBERS WITHIN EACH SPLICE ENCLOSURE.
4. CONTRACTOR SHALL LABEL ALL SPLICE ENCLOSURES AND FIBER.
5. ALL TRANSCEIVER CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR FOR DETERMINING/ENSURING PROPER TERMINATION OF FIBER.
6. CONTRACTOR TO CONTACT PETER NICHOLAS, CITY OF DURHAM TRAFFIC ENGINEER, (919) 560-4366 48 HOURS PRIOR TO BEGINNING OF WORK ON SYSTEM SPLICING.
7. CONTRACTOR TO RECORD EXISTING SPLICING PRIOR TO REMOVAL OF ANY SPLICED FIBERS AND RESPLICE ACCORDING TO EXISTING SPLICES WHERE APPLICABLE.
8. TERMINATE AND CAP ALL ADDITION DROP FIBERS IN SPLICE ENCLOSURE.

DURHAM
1869
101 City Hall Plaza
Durham, NC 27701
(919) 560-4366

CITY OF DURHAM
TRANSPORTATION
DEPARTMENT

101 City Hall Plaza
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Phone: (919) 560-4366

SCALE 0 N/A 1" =50'

SPLICE DETAIL
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05	DURHAM COUNTY		DURHAM
PLAN DATE:	JULY 2013	REVIEWED BY:	AWE
PREPARED BY:	PJN	PROJ NO.:	

REVISIONS	INT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS IV
SIGNATURE
12-6-13 DATE
FILE NAME: MLKcableresulting.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-14

SPLICE ENCLOSURE
MLK 105
MLK PARKWAY
AT PWOC ENTRANCE

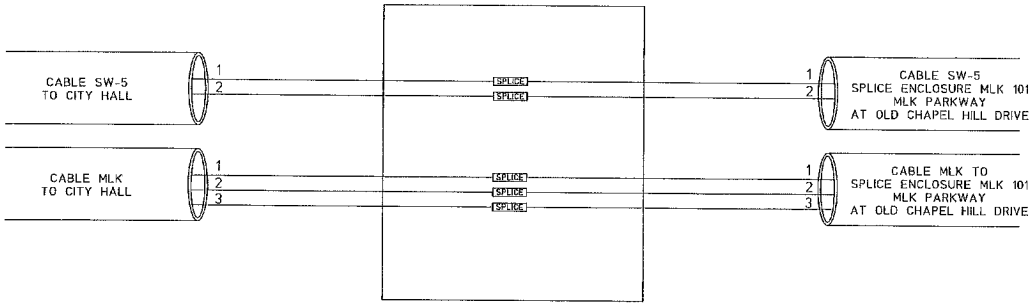
RESERVED FOR FUTURE USE

Notes. Unused fibers left coiled and stored in enclosure.

LEGEND

X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



UNDERGROUND SPLICE ENCLOSURE

1. CONTRACTOR SHALL INSTALL A TRANSCEIVER THAT IS COMPATABLE WITH THE EXISTING SIGNAL SYSTEM. MLK-105
2. CONTRACTOR IS RESPONSIBLE FOR ASSURING COMMUNICATIONS TO DURHAM TRAFFIC OPERATIONS CENTER ARE STABLE. IN THE EVENT COMMUNICATIONS CANNOT BE ESTABLISHED ACCORDING TO SPLICING DETAILS THE CONTRACTOR SHALL MODIFY SPLICING AND PLANS AS DIRECTED BY THE CITY TRAFFIC ENGINEER AND PROVIDE AND/ALL AS BUILT DRAWINGS.
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5. ALL TRANSCEIVER CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR FOR DETERMINING/ENSURING PROPER TERMINATION OF FIBER.
6. CONTRACTOR TO CONTACT PETER NICHOLAS, CITY OF DURHAM TRAFFIC ENGINEER, (919) 560-4366 48 HOURS PRIOR TO BEGINNING OF WORK ON SYSTEM SPLICING.
7. CONTRACTOR TO RECORD EXISTING SPLICING PRIOR TO REMOVAL OF ANY SPLICED FIBERS AND RESPLICE ACCORDING TO EXISTING SPLICES WHERE APPLICABLE.
8. TERMINATE AND CAP ALL ADDITION DROP FIBERS IN SPLICE ENCLOSURE.

DURHAM
INCORPORATED
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(919) 560-4366

CITY OF DURHAM
TRANSPORTATION DEPARTMENT

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Durham, NC 27701
Phone: (919) 560-4366

SPLICE DETAIL
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05	DURHAM COUNTY	DURHAM
PLAN DATE: JULY 2013	REVIEWED BY: AWE	
PREPARED BY: PJN	FILE NO.	

REVISIONS	INIT.	DATE

SCALE: 0 N/A
1" =50'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032048 ENGINEER PETER JOSEPH NICHOLAS
SIGNATURE
12-6-13
DATE
FILE NAME: MLKconduiting.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-15

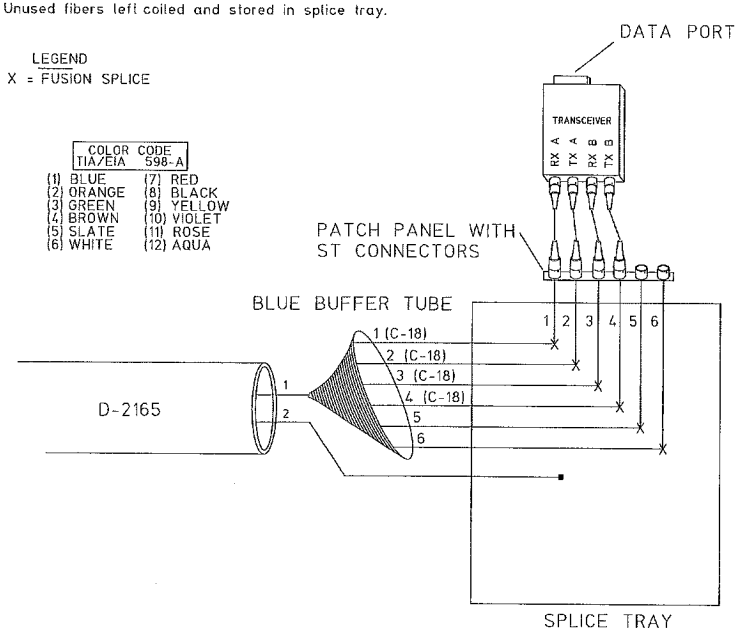
FIBER DROP AT
MLK PARKWAY
AT DIXON ROAD

SIG. INV 05-2165

Notes:
Unused fibers left coiled and stored in splice tray.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



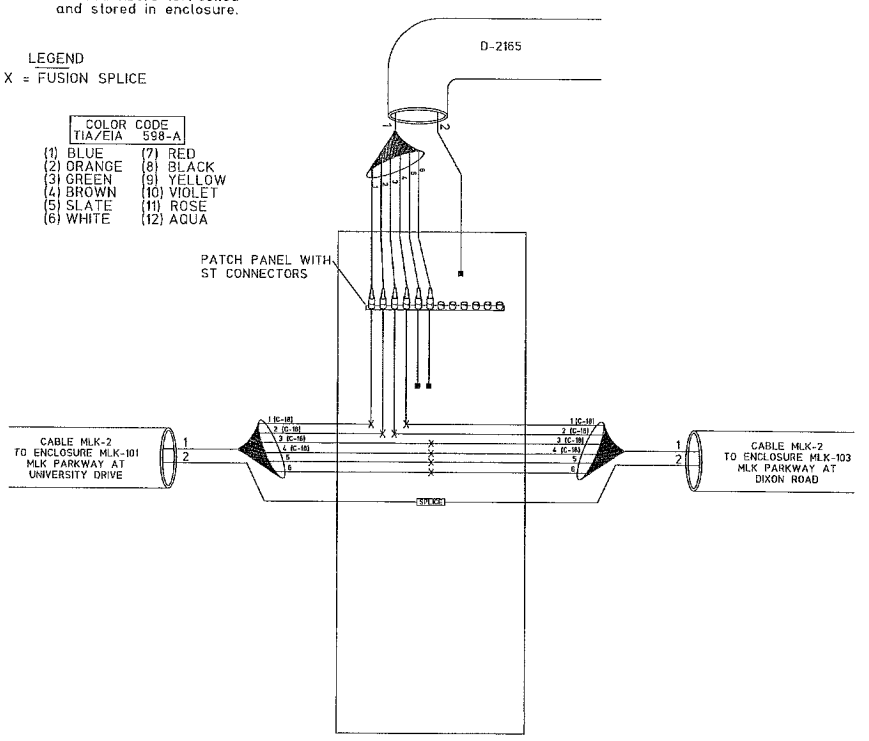
SPLICE ENCLOSURE
MLK 102
MLK PARKWAY
AT DIXON ROAD

SIG. INV .05-2165

Notes: Unused fibers left coiled
and stored in enclosure.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



UNDERGROUND SPLICE ENCLOSURE
MLK-102

1. CONTRACTOR SHALL INSTALL A TRANSCEIVER THAT IS COMPATABLE WITH THE EXISTING SIGNAL SYSTEM.
2. CONTRACTOR IS RESPONSIBLE FOR ASSURING COMMUNICATIONS TO DURHAM TRAFFIC OPERATIONS CENTER ARE STABLE. IN THE EVENT COMMUNICATIONS CANNOT BE ESTABLISHED ACCORDING TO SPLICING DETAILS THE CONTRACTOR SHALL MODIFY SPLICING AND PLANS AS DIRECTED BY THE CITY TRAFFIC ENGINEER AND PROVIDE AND/ALL AS BUILT DRAWINGS.
3. CONTRACTOR SHALL TERMINATE ALL SPARE FIBERS AT THE PATCH PANEL AND SPLICE ALL FIBERS WITHIN EACH SPLICE ENCLOSURE.
4. CONTRACTOR SHALL LABEL ALL SPLICE ENCLOSURES AND FIBER.
5. ALL TRANSCEIVER CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR FOR DETERMINING/ENSURING PROPER TERMINATION OF FIBER.
6. CONTRACTOR TO CONTACT PETER NICHOLAS, CITY OF DURHAM TRAFFIC ENGINEER, (919) 560-4366 48 HOURS PRIOR TO BEGINNING OF WORK ON SYSTEM SPLICING.
7. CONTRACTOR TO RECORD EXISTING SPLICING PRIOR TO REMOVAL OF ANY SPLICED FIBERS AND RESPLICE ACCORDING TO EXISTING SPLICES WHERE APPLICABLE.
8. TERMINATE AND CAP ALL ADDITION DROP FIBERS IN SPLICE ENCLOSURE.

DURHAM 1869 CITY OF MERIT

CITY OF DURHAM
TRANSPORTATION
DEPARTMENT

101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

SPLICE DETAIL
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05	DURHAM COUNTY		DURHAM
PLAN DATE:	JULY 2013	REVIEWED BY:	AWE
PREPARED BY:	PJN	PROJ NO.	

REVISIONS	INIT.	DATE

SCALE
0 N/A
1" =50'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 030240 ENGINEER PETER BENJAMIN NICHOLAS
SIGNATURE 12-6-13 DATE
FILE NAME: MLKsplicedetail.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-16

FIBER DROP AT
MLK PARKWAY
AT HOPE VALLEY DRIVE

SIG. INV 05-1978

Notes:
Unused fibers left coiled and stored in splice tray.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
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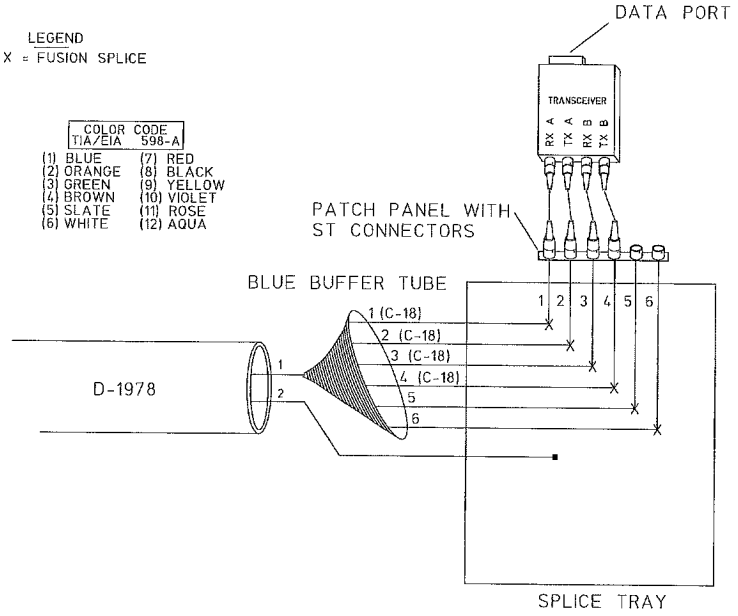
(6) WHITE	(12) AQUA



SPLICE ENCLOSURE
MLK 103
MLK PARKWAY
AT HOPE VALLEY DRIVE

SIG. INV 05-1978

Notes: Unused fibers left coiled and stored in enclosure.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
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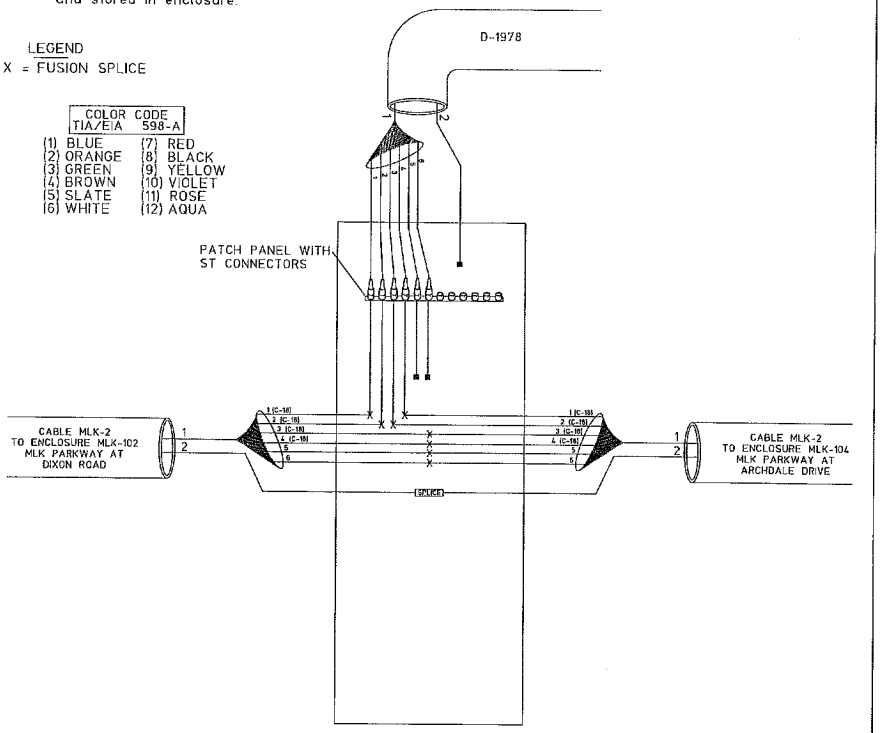
(6) WHITE	(12) AQUA



UNDERGROUND SPLICE ENCLOSURE
MLK-103

1. CONTRACTOR SHALL INSTALL A TRANSCEIVER THAT IS COMPATABLE WITH THE EXISTING SIGNAL SYSTEM.
2. CONTRACTOR IS RESPONSIBLE FOR ASSURING COMMUNICATIONS TO DURHAM TRAFFIC OPERATIONS CENTER ARE STABLE. IN THE EVENT COMMUNICATIONS CANNOT BE ESTABLISHED ACCORDING TO SPLICING DETAILS THE CONTRACTOR SHALL MODIFY SPLICING AND PLANS AS DIRECTED BY THE CITY TRAFFIC ENGINEER AND PROVIDE AND/ALL AS BUILT DRAWINGS.
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7. CONTRACTOR TO RECORD EXISTING SPLICING PRIOR TO REMOVAL OF ANY SPLICED FIBERS AND RESPLICE ACCORDING TO EXISTING SPLICES WHERE APPLICABLE.
8. TERMINATE AND CAP ALL ADDITION DROP FIBERS IN SPLICE ENCLOSURE.

DURHAM
1869
CITY OF MEDICINE
101 City Hall Plaza
Durham, NC 27701
(919) 560-4366

CITY OF DURHAM
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Durham, NC 27701
Phone: (919) 560-4365

SPLICE DETAIL
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 | DURHAM COUNTY | DURHAM
PLAN DATE: JULY 2013 | REVIEWED BY: AWE
PREPARED BY: PJN | PROJECT NO.:

SCALE: 0 N/A
1" =50'

REVISIONS	BY	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS
SIGNATURE
DATE 12-4-13
FILE NAME: MLKcableroutng.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-17

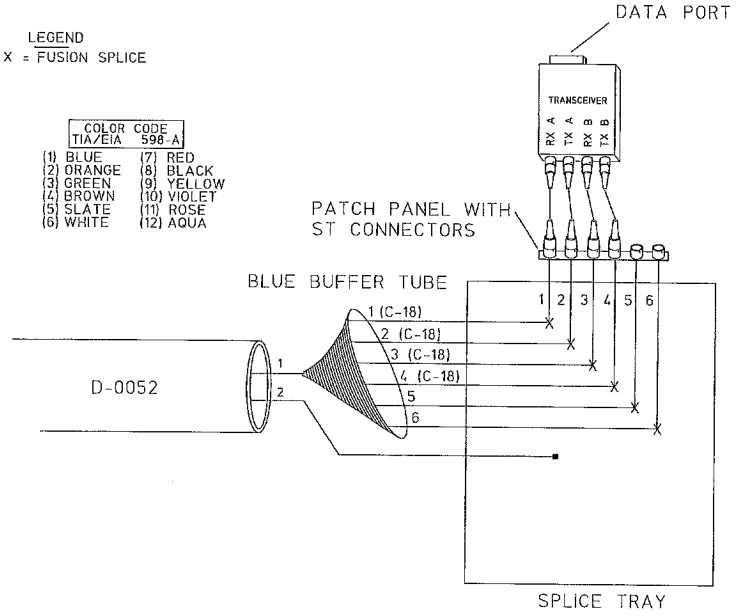
FIBER DROP AT
MLK PARKWAY
AT ARCHDALE DRIVE

SIG. INV 05-0052

Notes:
Unused fibers left coiled and stored in splice tray.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



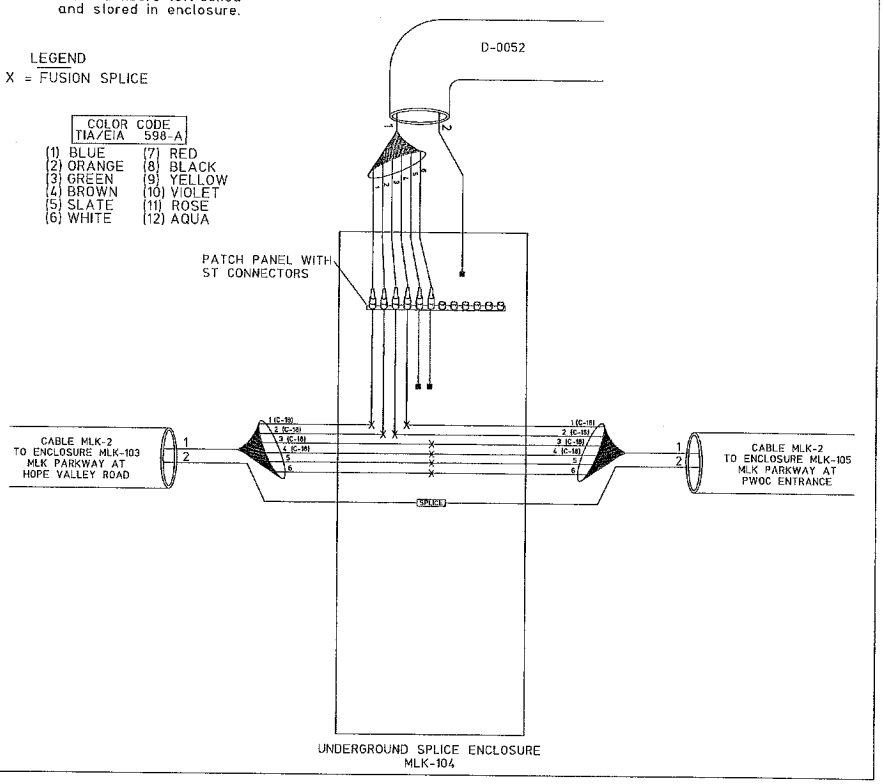
SPLICE ENCLOSURE
MLK 104
MLK PARKWAY
AT ARCHDALE DRIVE

SIG. INV 05-0052

Notes: Unused fibers left coiled
and stored in enclosure.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



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DURHAM
1869
CITY OF HOMES
101 City Hall Plaza
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(919) 560-4366

CITY OF DURHAM
TRANSPORTATION
DEPARTMENT

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SPLICE DETAIL
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 | DURHAM COUNTY | DURHAM
PLAN DATE: JULY 2013 | REVIEWED BY: AWE
PREPARED BY: PJM | PROJ NO.

SCALE: 0 N/A
1" =50'

REVISIONS	NO.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 037049 ENGINEER PETER JOSEPH NICHOLAS

SIGNATURE 12-4-13 DATE

P.E. NAME MLKsplicecalling.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-18

SPLICE ENCLOSURE
MLK 105
MLK PARKWAY
AT PWOC ENTRANCE

RESERVED FOR FUTURE USE

Notes: Unused fibers left coiled and stored in enclosure.

LEGEND

X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
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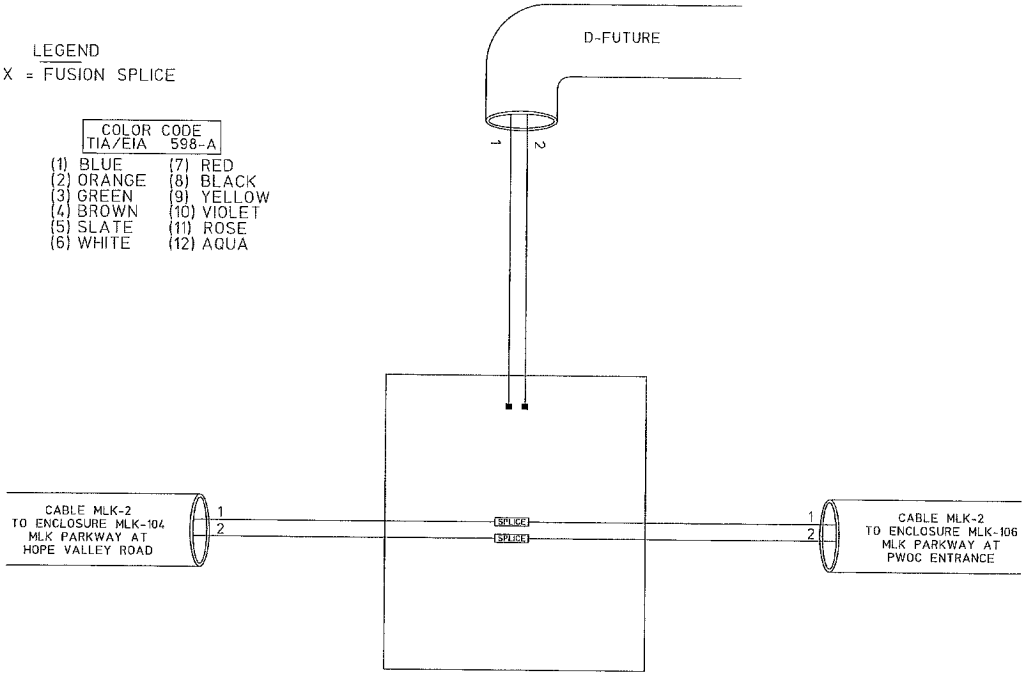

UNDERGROUND SPLICE ENCLOSURE

1. CONTRACTOR SHALL INSTALL A TRANSCEIVER THAT IS COMPATABLE WITH THE EXISTING SIGNAL SYSTEM. MLK-105
2. CONTRACTOR IS RESPONSIBLE FOR ASSURING COMMUNICATIONS TO DURHAM TRAFFIC OPERATIONS CENTER ARE STABLE. IN THE EVENT COMMUNICATIONS CANNOT BE ESTABLISHED ACCORDING TO SPLICING DETAILS THE CONTRACTOR SHALL MODIFY SPLICING AND PLANS AS DIRECTED BY THE CITY TRAFFIC ENGINEER AND PROVIDE AND/ALL AS BUILT DRAWINGS.
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8. TERMINATE AND CAP ALL ADDITION DROP FIBERS IN SPLICE ENCLOSURE.

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CITY OF DURHAM
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Durham, NC 27701
Phone: (919) 560-4366

SPLICE DETAIL
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 | DURHAM COUNTY | DURHAM
PLAN DATE: JULY 2013 | REVIEWED BY: AWE
PREPARED BY: PJN | DRAWN BY:

SCALE: 0 N/A, 1" = 50'

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS
SIGNATURE
DATE 12-6-13
FILE NAME: MLKcableseallog.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-19

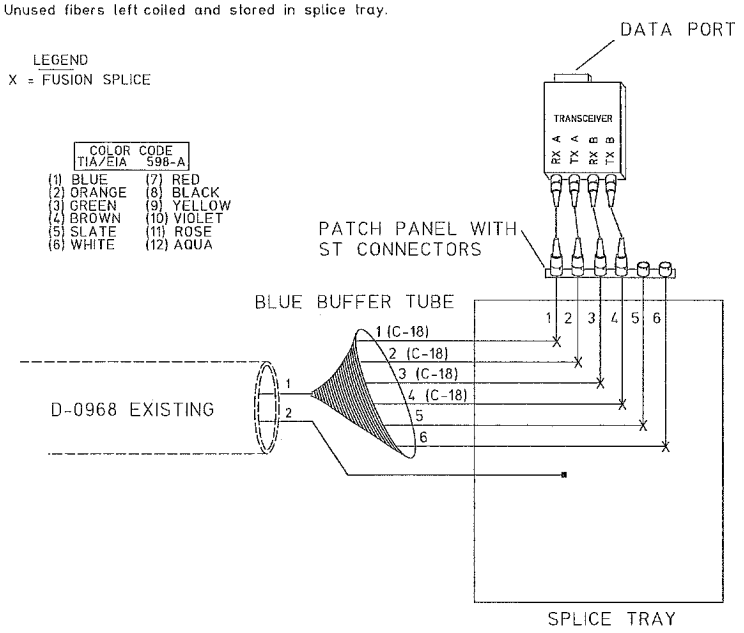
FIBER DROP AT
MLK PARKWAY
AT S. ROXBORO STREET

SIG. INV C-0968

Notes:
Unused fibers left coiled and stored in splice tray.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



EXISTING SPLICE ENCLOSURE
MLK 106
MLK PARKWAY
AT S. ROXBORO STREET

SIG. INV C-0968

Notes: Unused fibers left coiled and stored in enclosure.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
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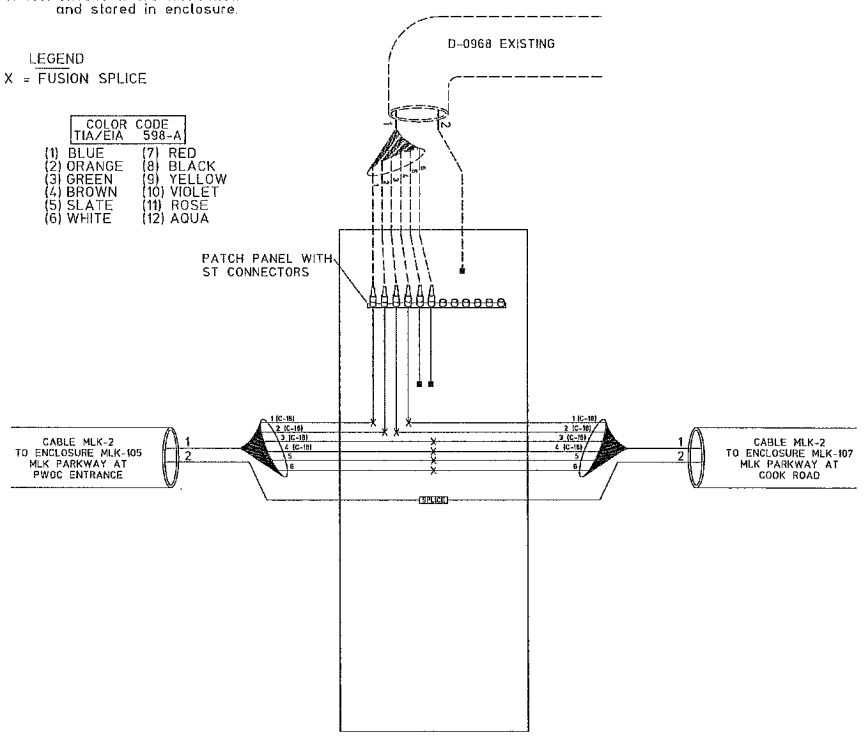


EXISTING AERIAL SPLICE ENCLOSURE
MLK-106

1. CONTRACTOR SHALL INSTALL A TRANSCEIVER THAT IS COMPATABLE WITH THE EXISTING SIGNAL SYSTEM.
2. CONTRACTOR IS RESPONSIBLE FOR ASSURING COMMUNICATIONS TO DURHAM TRAFFIC OPERATIONS CENTER ARE STABLE. IN THE EVENT COMMUNICATIONS CANNOT BE ESTABLISHED ACCORDING TO SPLICING DETAILS THE CONTRACTOR SHALL MODIFY SPLICING AND PLANS AS DIRECTED BY THE CITY TRAFFIC ENGINEER AND PROVIDE AND/ALL AS BUILT DRAWINGS.
3. CONTRACTOR SHALL TERMINATE ALL SPARE FIBERS AT THE PATCH PANEL AND SPLICE ALL FIBERS WITHIN EACH SPLICE ENCLOSURE.
4. CONTRACTOR SHALL LABEL ALL SPLICE ENCLOSURES AND FIBER.
5. ALL TRANSCEIVER CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR FOR DETERMINING/ENSURING PROPER TERMINATION OF FIBER.
6. CONTRACTOR TO CONTACT PETER NICHOLAS, CITY OF DURHAM TRAFFIC ENGINEER, (919) 560-4366 48 HOURS PRIOR TO BEGINNING OF WORK ON SYSTEM SPLICING.
7. CONTRACTOR TO RECORD EXISTING SPLICING PRIOR TO REMOVAL OF ANY SPLICED FIBERS AND RESPLICE ACCORDING TO EXISTING SPLICES WHERE APPLICABLE.
8. TERMINATE AND CAP ALL ADDITION DROP FIBERS IN SPLICE ENCLOSURE.

DURHAM
1869
CITY OF MEDICINE
101 City Hall Plaza
Durham, NC 27701
(919) 560-4366

CITY OF DURHAM
TRANSPORTATION
DEPARTMENT

101 City Hall Plaza
Durham, NC 27701
Phone: (919) 560-4366

SPLICE DETAIL
M.L.K. JR. BOULEVARD
& PWOC

DIVISION 05 | DURHAM COUNTY | DURHAM
PLAN DATE: JULY 2013 | REVIEWED BY: AWE
PREPARED BY: PJN | PROJ NO.

SCALE: 0 N/A 1" =50'

REVISIONS	BY	DATE

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
032640
ENGINEER
PETER JOSEPH NICHOLAS

SIGNATURE
12-6-13
DATE

FILENAME: MLKsplicedetail.dgn

PROJECT REFERENCE NO.	SHEET NO.
MLK FIBER	CRP-20

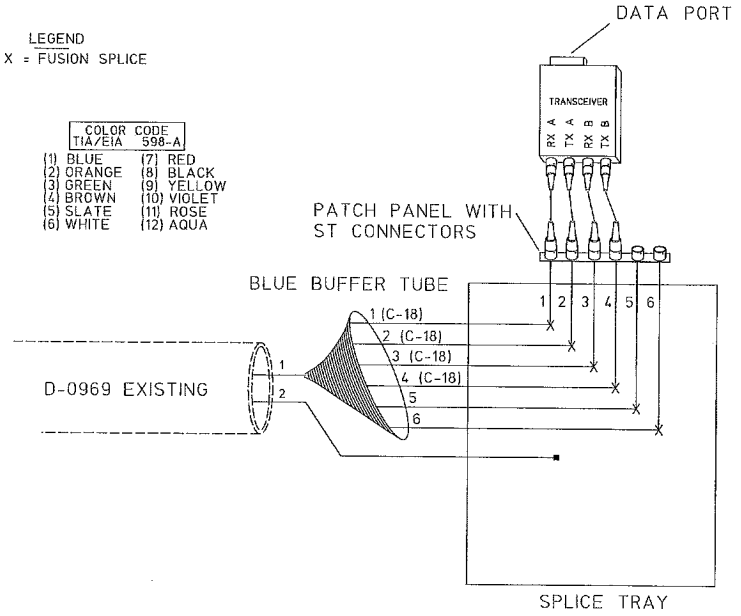
FIBER DROP AT
MLK PARKWAY
AT COOK ROAD

SIG. INV C-0969

Notes:
Unused fibers left coiled and stored in splice tray.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
(6) WHITE	(12) AQUA



EXISTING SPLICE ENCLOSURE
MLK 107
MLK PARKWAY
AT COOK ROAD

SIG. INV C-0969

Notes: Unused fibers left coiled and stored in enclosure.

LEGEND
X = FUSION SPLICE

COLOR CODE TIA/EIA 598-A	
(1) BLUE	(7) RED
(2) ORANGE	(8) BLACK
(3) GREEN	(9) YELLOW
(4) BROWN	(10) VIOLET
(5) SLATE	(11) ROSE
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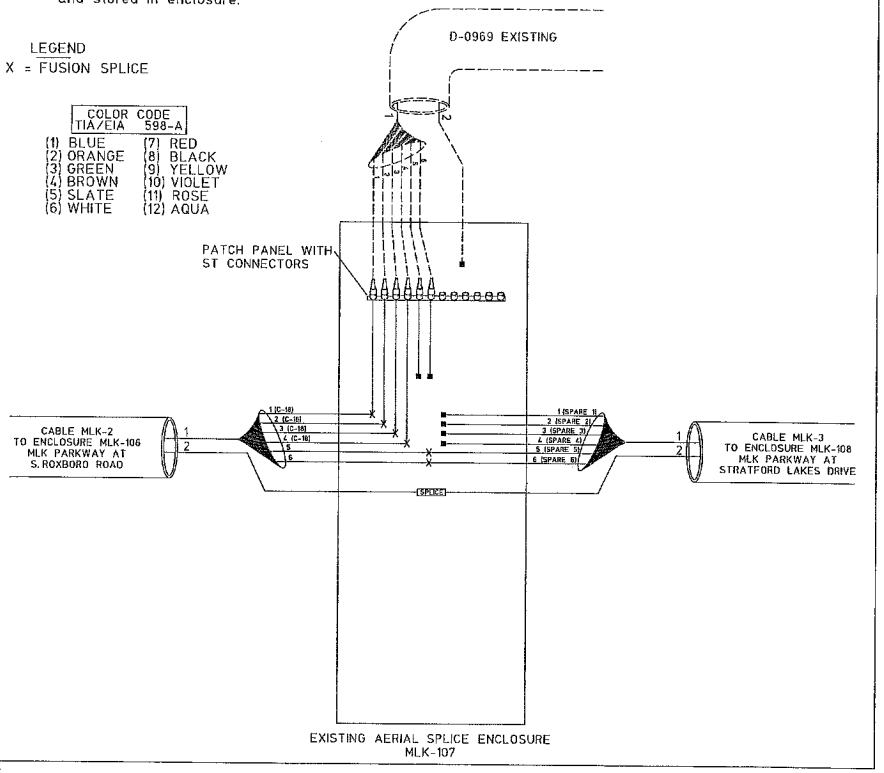

EXISTING AERIAL SPLICE ENCLOSURE
MLK-107

1. CONTRACTOR SHALL INSTALL A TRANSCEIVER THAT IS COMPATABLE WITH THE EXISTING SIGNAL SYSTEM.
2. CONTRACTOR IS RESPONSIBLE FOR ASSURING COMMUNICATIONS TO DURHAM TRAFFIC OPERATIONS CENTER ARE STABLE. IN THE EVENT COMMUNICATIONS CANNOT BE ESTABLISHED ACCORDING TO SPLICING DETAILS THE CONTRACTOR SHALL MODIFY SPLICING AND PLANS AS DIRECTED BY THE CITY TRAFFIC ENGINEER AND PROVIDE AND/ALL AS BUILT DRAWINGS.
3. CONTRACTOR SHALL TERMINATE ALL SPARE FIBERS AT THE PATCH PANEL AND SPLICE ALL FIBERS WITHIN EACH SPLICE ENCLOSURE.
4. CONTRACTOR SHALL LABEL ALL SPLICE ENCLOSURES AND FIBER.
5. ALL TRANSCEIVER CONFIGURATIONS ARE GENERIC. CONTRACTOR IS RESPONSIBLE FOR FOR DETERMINING/ENSURING PROPER TERMINATION OF FIBER.
6. CONTRACTOR TO CONTACT PETER NICHOLAS, CITY OF DURHAM TRAFFIC ENGINEER, (919) 560-4366 48 HOURS PRIOR TO BEGINNING OF WORK ON SYSTEM SPLICING.
7. CONTRACTOR TO RECORD EXISTING SPLICING PRIOR TO REMOVAL OF ANY SPLICED FIBERS AND RESPLICE ACCORDING TO EXISTING SPLICES WHERE APPLICABLE.
8. TERMINATE AND CAP ALL ADDITION DROP FIBERS IN SPLICE ENCLOSURE.

DURHAM
1869
CITY OF INVENTION

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SPLICE DETAIL
M.L.K. JR. BOULEVARD
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0 N/A
1" =50'

REVISIONS	INIT	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 032040 ENGINEER PETER JOSEPH NICHOLAS IV

SIGNATURE 12-6-13
DATE

FILE NAME: MLKcableroutingdgn